ELSEVIER

Biochemical Pharmacology 65 (2003) 2115–2120

Biochemical Pharmacology

www.elsevier.com/locate/biochempharm

Author index Volume 65

Aarnes, H., 1575
Abdel-Wahab, Y.H.A., 283
Abe, D., 1957
Abou-Donia, M.B., 2041
Agarwal, M.K., 1207
Aguilera-Gutierrez, A., 1061
Aguirre, A., 1451
Albertioni, F., 237
Alcaraz, M.J., 887, 905
Aletta, J.M., 1507
Alfonso, A., 193, 465
Álvarez, E., 1361
Alves, M., 1539
Ammon, H.P.T., 1835
Amri, H., 717
Andersen, J.M., 1575
Anderson, G.D., 1441
Andriantsitohaina, R., 669
Andrisano, V., 407
Apasov, S.G., 2081
Ardila-Osorio, H., 423
Arduini, E., 349
Arita, K., 339
Arranz, J.A., 1361
Ásgeirsdóttir, S.A., 1729
Assaraf, Y.G., 765
Azuma, J., 1181
Azuma, M., 1181

Babbs, A.J., 1103
Bäcker, A., 1741
Badary, O.A., 1521
Baguley, B.C., 109, 1853
Bahouth, S.W., 1883
Bailly, C., 25
Bakhle, Y.S., 2073
Balasubramanian, K.A., 683
Balazy, M., 515
Baldeyrou, B., 25
Baldwin, C.R., 535
Barnstable, C., 1917
Barret, J.-M., 755
Bartley, D., 315
Bartolini, M., 407
Basivireddy, J., 683
Bauer, E., 303
Bauer, J.A., 1189
Bauersachs, J., 397
Bayard, F., 629
Bayle, F., 435
Bayon, Y., 2021
Beck, K.-F., 293
Becker, A., 1719
Becker, G.W., 657
Behrens, M.H., 293
Beijnen, J.H., 275
Beinborn, M., 1515
Bekesi, G., 1691
Bentires-Alj, M., 1633
Berente, Z., 1373
Berghe, W., 303
Bernabéu, C., 209
Bertucci, C., 407
Betés, P.O., 209
Bey, S.-J., 2009
Bhagwat, B.Y., 941
Bhat, P.V., 1685
Bhugra, P., 2091
Bidinger, B., 649
Bieberschulte, W., 59
Bielorai, B., 833
Bigini, G., 783
Bikádi, Z., 447
Birringer, M., 269
Blau, N., 593
Blaustein, J.B., 1675
Blewett, S.A., 1007
Bloch, K.O., 1797
Blumenstein, I., 1151
Bock, K.W., 1521
Bocxe, S., 275
Boggetto, N., 1097
Bohlin, L., 897
Böl, G.-F., 269
Bollo, S., 999
Bonilla, E., 1701
Bontemps, F., 573
Borgne, F.L., 1483
Bosscher, K.D., 303
Botana, L.M., 193, 389, 465
Bours, V., 1633
Boven, E., 1875
Bozzi, A., 1271
Brabec, V., 1305
Bradley, K.A., 309
Brazdova, M., 1305
Brazier, M., 35
Brezak, M.-C., 423
Briand, G., 25
Brigelius-Flohé, R., 269
Brigui, I., 747
Brisdelli, F., 1271
Brock, P., 1295
Brough, S.J., 143
Brown, J.M., 1807
Bruschi, S.A., 181
Bucci, F., 1281
Buckley, M.G., 1007
Bunni, M.A., 765
Burchell, B., 1251, 1441
Burkhardt, M., 397
Burns, S.M., 1889
Burstein, S.H., 649
Buss, J.L., 161, 349
Busson, P., 423

Cabral, G.A., 1931
Cairns, D., 619
Caldwell, C.C., 2081
Camerini-Otero, C.S., 329
Cardoen, S., 573
Carenini, N., 1281
Carminati, P., 1281
Carnicelli, V., 783
Carraway, K.L., 1419
Casey, C.A., 535
Castro, J., 807
Castro, V., 897, 1551
Cathers, B.E., 823
Cattley, R.C., 949
Catusse, J., 813, 1915
Cavrini, V., 407
Ceccarelli, F., 783
Chan, W.K., 941
Chang, C.-Y., 1043, 1777
Chang, J.-Y., 2009
Chang, K.C., 457
Chang, L.-C., 1043
Chang, T.-S., 923
Chang, W.-C., 1383
Chang, Y.-L., 1897
Chauvière, G., 999
Chazot, P.L., 619
Chen, K., 1889
Chen, L., 1053
Chen, L.-T., 2009
Chen, T.-F., 1383
Chen, W.-J., 1777
Chen, Y.-N., 1427
Cheng, Y.-W., 1383
Chi, D.-W., 75
Chiang, H.-T., 581
Chih, T.-T., 319
Chinestra, P., 629
Chiu, H.-F., 319
Choi, K.H., 1565
Chong, W.S., 457
Christian, K., 1653
Christofi, F.L., 1529
Chrousos, G.P., 917
Chung, E., 923
Cliff, G.S., 1215
Coley, J., 949
Colosimo, S., 741
Congote, L.F., 2055

doi:10.1016/S0006-2952(03)00324-1

Contag, C.H., 1889
Contag, P.R., 1889
Conway, M., 181
Cooke, H.J., 1529
Cooper, A.J.L., 181
Cooper, S., 545
Corton, J.C., 949
Costa, B., 783
Cowan Jr., G.S.M., 1883
Coward, J.K., 315
Cox, J., 741
Cremaschi, G.A., 15
Cros, E., 121
Crul, M., 275
Csapo, Z., 2031

Dai, Y., 1997
Daikoku, T., 995
Dalton, S.R., 535
Dalton, T.P., 545
Daly, J.W., 329
Damodar Reddy, C., 1943
Damodaran, T.V., 2041
David Goldman, I., 1163
Davis, J.B., 143
Davis, K.A., 657
Day, A.J., 479, 1199
De Backer, J.-P., 1339
De Cesare, M., 1281
de Graaf, M., 1875
de la Rosa, L., 193
de la Rosa, L.A., 389
De la Rosa, L.A., 465
De Petrocellis, L., 1473
de Vries, H.E., 877
Deberg, M.A., 377
Debey, S., 979
Debska, G., 1827
Decker, R.H., 1997
del Mazo, J., 1701
del Olmo, E., 1539
Delacauw, A., 573
Delahoussaye, Y.M., 1807
Delrieu, I., 629
Demarquoy, J., 1483
Denny, W.A., 1807
Deregowski, V., 1633
Devos, S., 303
Dey, C.S., 249
Dhalla, N.S., 2091
Di Marzo, V., 1473
Diano, S., 1917
Diáz-González, F., 1451
Dib, M., 435
Dickens, M., 361
DiFalco, M.R., 2055
Dijkstra, C.D., 877
Djavanbakht-Samani, T., 747
Dobrucki, J., 1827
Dolowy, K., 1827
Dong, J., 1907
Donohue Jr., T.M., 637
Doran, A.C., 1515
Dorta, J., 1451
Dou, S., 657
Drieu, K., 717
Dubocovich, M.L., 731
Duckworth, B.P., 1261
Duester, G., 1685
Duggan, C., 619
Dumond, J., 1097
Dumontet, C., 121
DuPont, M.S., 1199
Dupuis, P., 435
Dworakowska, B., 1827

Eckert, G.P., 843
Eckloff, B.W., 1787
Edgar, V.A., 15
Egashira, T., 625
Eger, K., 603
Egerton, J., 143
Ehlert, F.J., 1227
Ehrenberger, K., 59
Elford, H., 237
Emmrich, J., 1295
Erdmann, A., 525
Eriksson, S., 237
Ethell, B.T., 1251, 1441
Etiévant, C., 755
Everts, M., 1729

Fabian, I., 833
Fabianowska-Majewska, K., 219
Fain, J.N., 1883
Falette, N., 121
Fan, B., 1967
Fan, L.-Q., 949
Fardelonne, P., 35
Favot, L., 669
Faye, J.-C., 629
Feller, D.R., 1489
Feng, W., 1077
Fernández, J.J., 1451
Ferramola de Sancovich, A.M., 1495
Ferrant, A., 573
Ferretti, A., 1271
Fettes, M., 1251
Ficheux, H., 377
Fierlbeck, W., 293
Figueira-Coelho, J., 1035
Fillet, M., 1633
Flatt, P.R., 283
Flordal, E., 237
Fojta, M., 1305
Fonnum, F., 1575
Foord, S.M., 1463
Fox, L.H., 361
Frankard, J., 573
Frei, K., 59
Fresno Vara, J.Á., 209
Friedberg, T., 1817
Fuhr, U., 1817
Fujii, S., 1907
Fukui, T., 989
Furumoto, T., 1907
Fusai, T., 1351

Gadek, T.R., 1
Gagnon, I., 1685
Galland, S., 1483
Gallyas Jr., F., 1115, 1373
Galmarini, C.M., 121
Ganguly, S., 441
Gao, Z.-G., 525, 923, 1675
Garay, R.P., 435
García-Martínez, J.M., 209
García-Piñeres, A.J., 1551
García-Villafranca, J., 807
Garnier, M., 629
Garnier-Suillerot, A., 969
Garte, S., 441
Gaté, L., 1611
Gatti, L., 1281
Gee, J.M., 1199
Geiger, H., 293
Gellerich, F.N., 911
Gellert, N., 161
Genaro, A.M., 15
Georges, B., 1483
Gerhard, R., 1151
Giamarchi, C., 629
Gielen, J., 1633
Gille, L., 43
Giusti, L., 783
Glatt, H., 269
Glisovic, T., 1653
Goldenberg, H., 1973
Gomez-Paloma, L., 887
Gonick, H.C., 1741
Goossens, J.-F., 25
Gorman, N., 545
Goto, D., 1907
Gow, I.F., 1747
Gracia-Mora, I., 1979
Grainger, D.J., 1027
Grant, S., 1997
Gravanis, A., 917
Green, A., 1103
Green, B.D., 283
Greimers, R., 1633
Griffin, M.T., 1227
Gross, A.S., 1675
Grossmann, J., 1755
Guh, J.-H., 1897
Guillén, A., 807
Guillén, M.I., 905
Gumireddy, K., 1943
Guo, J., 315
Gupta, R.C., 933
Gustavsson, L., 897
Gutierrez, P., 1061
Guzman, J., 1529

Ha, H., 83
Ha, J.-H., 1343
Hada, T., 259
Haddad, J.J., 697
Haegeman, G., 303
Haile, W.H., 315
Hainaut, P., 1129
Haisma, H.J., 1875
Hale, J.E., 657
Halevy, A., 833
Halperin, D., 833
Hamagawa, E., 101
Hameg, A., 435
Hammadi, A., 1351
Han, D.C., 1343
Han, M.Y., 1343
Haorah, J., 637
Haq, B., 1419
Harper, J.L., 329
Hashimoto, N., 1435

Hassanain, H., 1529
Hasse, A., 1991
Hastedt, K., 599
Hay, M.P., 1807
He, K., 67
He, Q., 1767
He, S., 1007
Heese, K., 293
Heijne, W.H.M., 857
Helms, M.J., 91
Hendriks, J.J.A., 877
Henrotin, Y.E., 377
Herzig, M.C.S., 503
Hessling, J., 961
Hiler, M.L., 1883
Hill, B.T., 755
Hino, O., 677
Hirst, W.D., 1103
Holland, J.F., 1691
Hooghe, R., 303
Hooghe-Peters, E.L., 303
Hooijberg, J.H., 765
Horvath, T.L., 1917
Houghton, C.E., 361
Howells, L., 361
Hoyt, D.G., 1189
Hsian, Y.-M., 319
Hsiao, G., 1383
Hsieh, H.-P., 2009
Hsu, J.C.-H., 1227
Hsu, M.-F., 1043
Hu, Q.-Y., 1691
Hu, S., 9
Hu, Y.-P., 1419
Huang, D.P., 423
Huang, L.-J., 1043
Huang, Y.-W., 1897
Hudson, E.A., 361
Humar, M., 1551
Hunyady, L., 1329
Hurley, A.L., 1261
Hutson, S.M., 181
Hutzler, P., 1755
Huwiler, A., 293
Hynson, R.M.G., 1867

Ida, M., 795
Idahl, L.-Å., 1835
IJzerman, A.P., 525
Ikegaki, N., 1943
Imagawa, S., 1907
Imai, K., 1583
Inouye, K., 1957
Iorio, E., 1271
Ito, A., 2065
Izumi, F., 2049

Jackson, E.C.G., 1243
Jacob, M., 683
Jacobson, K.A., 329, 525, 923, 1675
Jancar, S., 2073
Jansen, G., 765
Jaster, R., 1295
Jeong, H.-W., 1343
Jerman, J.C., 143
Jia, T.-L., 709
Jia, Z., 1967
Jiang, J.-D., 1691
Jiang, W., 51
Jlidi, R., 423
Johannessen, M., 1317
Johansen, B., 1317
Johansson, S., 897
Johnson, I.T., 1199
Jollès, B., 747
Jones, J.L., 361
Jones, K.H., 2041
Jordheim, L., 121
Joseph, S., 1817
Juliano, L., 1171
Juliano, M.A., 1171
Jung, H.J., 457

Kaap, S., 603
Kajimoto, K., 995
Kakuta, Y., 101
Kalantaridou, S., 917
Kalir, H., 833
Kamel, S., 35
Kamisuki, S., 259
Kanekazu, U., 259
Kaneko, T., 1907
Kang, Y.J., 457
Kanu, A., 1883
Kasparkova, J., 1305
Kaspers, G.J.L., 765
Kasprzyk, P., 423
Kassel, K.M., 535
Kathmann, I., 765
Kawanabe, Y., 1435
Kawasaki, T., 677
Kawashima, Y., 1583
Kazimierczuk, Z., 563
Keller, U., 593
Kendall, D.A., 1623
Kennedy, S.J., 1931
Kersemans, V., 1329
Kestell, P., 109, 1853
Keszler, G., 563, 2031
Khabir, A., 423
Kicinska, A., 1827
Kim, H.-C., 1343
Kim, H.J., 457
Kim, H.M., 1343
Kim, K.-T., 83
Kim, S.-A., 329
Kim, S.G., 525, 923
Kim, S.K., 1565
Kim, S.-W., 75
Kim, Y.C., 1565
Kirsch, C., 843
Kitabatake, A., 1907
Kleiman de Pisarev, D.L., 1495
Kleinman, W.A., 741
Klotz, K.-N., 961
Kluth, D., 269
Kluza, J., 25
Knijn, A., 1271
Kobuchi, H., 339
Kochanny, M., 1407
Köhle, C., 1521
Kojo, S., 101
Kok, R.J., 1729
Kokkola, T., 1463
Kölliker Frers, R.A., 1495
Komai, K., 1957
Komninou, D., 741
Kopin, A.S., 1515
Kottra, G., 1151
Kouach, M., 25
Kovarova, L., 1305
Koyama, M., 1583
Koyanagi, S., 173
Kozlov, A.V., 59
Kramer, H.J., 1741
Kramer, L.B., 1997
Kristina Walle, U., 1603
Kruczynski, A., 755
Kruglov, A.G., 43
Kryzer, I., 1973
Kudo, N., 1583
Kumagai, T., 259
Kumar, N., 249
Kunesch, G., 1351
Kuo, S.-C., 1043
Kuo, Y.-H., 1383
Kurinov, I.V., 1709
Kurosaki, E., 795
Kwasniewski, F.H., 2073
Kwon, B.-M., 1343
Kwon, H.-y., 75

Labidalle, S., 1643
Lagercrantz, S., 237
Laigle, A., 747
Laitinen, J.T., 1463
Lampidis, T.J., 1419
Landes, N., 269
Lang, C.A., 741
Lang, M., 1653
Lastres, P., 209
Laychock, S.G., 1507
Le Bras, J., 1351
Le, M.T., 1329
Lee, B.K., 457
Lee, C.W., 1343
Lee, D.H., 457
Lee, T.-G., 83
Lee, Y.-H., 75
Lee, Y.S., 457
Lees, G., 619
Leiro, J.M., 1361
Lembert, N., 1835
Lenti, L., 1271
Lentz, D., 1407
Leone-Kabler, S., 1261
Leufkens, P., 1007
Leutzinger, Y., 741
Levin, J., 1997
Li, A.-H., 329
Li, D., 1767
Li, J.-N., 1691
Li, P., 1007
Li, Y.-Y., 1767
Liang, A.M., 1407
Liang, H., 503
Liang, Y., 1767
Liang, Y.-C., 1053
Liebe, S., 1295
Ligeret, H., 1643
Light, D.R., 1407
Ligresti, A., 1473
Liliemark, J., 237
Lim, J.-S., 1343

Lin, J.-K., 1053, 1777
Lin, N., 2065
Lin, Y.-H., 1691
Lin, Y.-L., 1043
Linscheid, P., 593
Lin-Shiau, S.-Y., 131, 1053
Liotard, A., 813, 1915
Liou, J.-P., 2009
Lippl, F., 1755
Little, J.M., 417
Littlejohn, A.F., 91
Liu, J.-F., 2009
Lo, Y.-K., 581
Loaiza, A., 1495
Loetchutinat, C., 969
Lohse, M.J., 961
Loillier, B., 813, 1915
Lokensgard, J.R., 9
Lopez-Hernandez, F.J., 2021
Lorget, F., 35
Lucacchini, A., 783
Lucas, R., 1539
Lufrano, M., 515
Lugnier, C., 669
Lukashev, D.E., 2081
Lundequist, A., 1171
Lunk, A., 1611
Lvov, Y.M., 1817

Ma, G., 51
MacDonald, J.R., 503
MacDonald, R.G., 637
MacEwan, D.J., 91
Mackenzie, P., 417
Maeda, N., 259
Makrigiannakis, A., 917
Manson, M.M., 361
Månsson, E., 237
Marcheggiani, D., 1271
Margioris, A., 917
Marín-Hernández, A., 1979
Martin, S., 669
Martinelli, R., 1281
Martins-Silva, J., 1035
Martín-Pérez, J., 209
Masaki, T., 1435
Masana, M.I., 731
Masereeuw, R., 1393
Mathias, P.C.F., 283
Mathy-Hartert, M., 377
Matsuoka, S., 1017
Matz, R., 669
Maya, J.D., 999
Mayerhofer, A., 1755
Mazzio, E., 1719
Mazzoni, M.R., 783
McEuen, A.R., 1007
McFadyen, M.C.E., 1663
McGuire, J.J., 315
McKay, S., 91
McNicol, A., 1243
Meesters, M.L.H., 1215
Meijer, D.K.F., 1729
Mellon, F.A., 479
Melman, N., 525, 1675
Melvin, W.T., 1663
Mensikova, V., 1741
Mentaverri, R., 35
Merfort, I., 897, 1551
Merville, M.-P., 1633
Meyer-Kirchrath, J., 979, 1991
Meyer-Lehnert, H., 1741
Micanovic, R., 657
Michalak, K., 551
Miguel, J.C., 283
Mihm, M.J., 1189
Miller, R.T., 949
Mimaki, Y., 2065
Minami, K., 2049
Minton, J.A.L., 1103
Mirshahi, M., 1207
Mishima, T., 1907
Mishra, S., 933
Mitchell, E., 1747
Mitsiades, N., 917
Mizushina, Y., 259
Moens, U., 1317
Mohamed, A.A.A., 91
Möhrle, B., 1521
Molema, G., 1729
Montine, K.S., 611
Montine, T.J., 611
Morello, A., 999
Moreno-Sánchez, R., 1979
Morera, E., 1473
Morgan, E.H., 1215
Morin, D., 1643
Morita, N., 1843
Morkunaite-Haimi, S., 43
Morrow, J.D., 611
Morser, J., 1407
Moser-Thier, K., 1451
Moss, J., 1761
Mueller, W.E., 843
Mühl, H., 293
Müller, B., 593
Müller, C.E., 525
Münzel, P.A., 1521
Münzel, T., 397
Murakami, C., 259
Murillo, R., 897
Murphy, J.W., 1623
Murphy, M.P., 67
Murray, G.I., 1663
Myhre, O., 1575

Nagaoka, M., 1017
Nagmani, R., 1489
Nakagawa, H., 173
Nakagawa, K., 1957
Nakai, Y., 1907
Nakano, R., 795
Nakayama, K., 1843
Nakazawa, S., 259
Nebert, D.W., 545
Neckameyer, W., 1643
Needs, P.W., 479
Neu, B., 1755
Neuhof, C., 911
Neuzil, J., 161
Newton, C.M., 657
Nicholas, J.B., 1
Nichols, R.C., 545
Nickolls, S.A., 1139
Nilius, S.M., 1991
Noblitt, T.W., 657
Nohl, H., 43, 59
Nonaka, Y., 1957
North, S., 1129
Nukada, H., 67
Nuñez-Vergara, L.J., 999
Nurowska, E., 1827
Nuss, P., 435

O'Brien, N.M., 479
Ohgami, M., 989
Ohta, A., 2081
Ohta, M., 1957
Ohyabu, Y., 1181
Okamoto, H., 1017
Okamoto, T., 677
Okano, T., 1957
O'Leary, K.A., 479
Olsen, P.A., 1317
Olson, J.M., 1931
Ooka, T., 423
Opolon, P., 423
Orallo, F., 1361
Ortar, G., 1473
Ortiz, M.A., 2021
O'Sullivan, A.C., 1251
Osz, E., 1373
Otten, U., 293

Palecek, E., 1305
Pan, S.-L., 1383, 1897
Pan, W.-Y., 2009
Pangalos, M.N., 1103
Panten, U., 599
Papadopoulos, V., 717
Paquet, J.-L., 813, 1915
Parente, L., 153
Park, J.-D., 75
Park, M.K., 457
Park, T.-J., 83
Park, Y.-S., 83
Parzy, D., 1351
Pasco, D.S., 1489
Patel, A.G., 2041
Paxton, J.W., 109, 1853
Payá, M., 887, 1539
Pearl-Yafe, M., 833
Pec, M.K., 1451
Pejler, G., 1171
Peng, C.-Y., 1897
Perego, P., 1281
Périé, J., 999
Perretti, M., 153
Perrin, D., 755
Peters, G.J., 765
Peterson, P.K., 9
Petit, J.-P., 35
Pfeilschifter, J., 293
Pfluger, P., 269
Phillips, P.C., 1943
Piao, S.-F., 1189
Pickwell, G.V., 1087
Piedrafita, F.J., 2021
Pietsch, E.C., 1261
Piette, J., 1633
Pigaglio, S., 747
Pinedo, H.M., 1875
Pisano, C., 1281
Pivonkova, H., 1305

Plank, L., 1973
Pluim, D., 275
Pluquet, O., 1129
Plüss, K., 293
Podo, F., 1271
Poirot, M., 629
Poletaev, A.I., 227
Ponka, P., 161, 349
Porter, N.A., 611
Posadas, I., 887
Pospisilova, S., 1305
Post, J., 1407
Pradines, B., 1351
Pratesi, G., 1281
Prevost, G., 423
Price, G.W., 1103
Priest, D.G., 765
Prigent, S.A., 361
Prinz, C., 1755
Prouillet, C., 35
Pruijn, F.B., 1807
Pruneau, D., 813, 1915
Puisieux, A., 121
Pulimood, A.B., 683
Purchio, A., 1889
Puschmann, A.J., 1755
Pyo, H.S., 457
Pyo, S., 75

Quadir, R., 1875
Quattrochi, L.C., 1087
Quentin, I., 603

Radominska-Pandya, A., 417
Raffalli-Mathieu, F., 1653
Ralevic, V., 143
Ramamoorthy, P., 683
Ramiandrasoa, F., 1351
Ramsay, R.R., 1867
Randazzo, A., 887
Randi, A.S., 1495
Rathi, S., 2091
Reboud-Ravaux, M., 1097
Reckless, J., 1027
Reginster, J.-Y.L., 377
Reich, E.E., 611
Repetto, Y., 999
Rezai, N., 619
Rhee, D.-K., 75
Rice, S.Q., 1103
Richard, M.-J., 1129
Richardson, J.M., 657
Richie Jr., J.P., 741
Rieber, M., 1593
Rieber, M.S., 1593
Ries, J., 1151
Rigault, C., 1483
Riley, R.J., 1251
Rio, M.-C., 629
Roels, F., 303
Rogier, C., 1351
Rooney, P.H., 1663
Rosowsky, A., 1427
Rossetti, R.G., 649
Rubin, R.P., 1507
Rühl, R., 269
Ruiz-Ramírez, L., 1979
Rumennik, G., 1407
Rusling, J.F., 1817
Russel, F.G.M., 1393

Sabbah, H.N., 933
Sadik, C.D., 773
Saengkhae, C., 969
Safrany, G., 2031
Sakaguchi, K., 259
Sakaguchi, N., 101
Sakai, K., 625
Sakaki, T., 1957
Salas, R.D., 1489
Saldanha, C., 1035
Sale, S., 361
Salinas, R., 503
San Feliciano, A., 1539
Sanchez, C., 377
Sancovich, H.A., 1495
Sandoval, C., 2055
Santos, N.C., 1035
Saris, N.-E.L., 43
Sashida, Y., 2065
Sasvari-Szekely, M., 563, 2031
Sato, T., 2065
Sausville, E.A., 1061
Savaraj, N., 1419
Savigni, D.L., 1215
Sawada, N., 1957
Scavuzzo, M.C., 783
Schaer, D.J., 593
Schäfer, A., 397
Schaffer, S.W., 1181
Scheffer, G.L., 765
Scheiber-Mojdehkar, B., 1973
Schellens, J.H.M., 275
Schengrund, C.-L., 699
Schepp, W., 1755
Schewe, T., 773
Schramm, H.J., 1097
Schramm, W., 1097
Schrör, K., 979, 1991
Schwab, M., 1521
Scott, E.E., 1261
Seo, H.G., 457
Sergeeva, M.V., 823
Seternes, O.M., 1317
Shaheen, M., 603
Shaw, T.E., 1103
Shehnaz, D., 1227
Shen, M.-Y., 1383
Sheng, W.S., 9
Shephard, K.C., 349
Shetty, P.V., 941
Sheu, J.-R., 1383
Shi, Y., 1967
Shibasaki, M., 795
Shih, H., 1087
Shikama, H., 795
Shim, J.-H., 75
Shimaya, A., 795
Shimazu, E., 1017
Shimeno, H., 173
Shinohara, Y., 995
Shiozawa, S., 1957
Siedle, B., 897
Sies, H., 773
Silberman, D.M., 15
Simonyi, M., 447
Sinclair, J.F., 545
Sinclair, P.R., 545
Sinou, V., 1351
Siso, I.G., 1361
Sitkovsky, M.V., 493, 2081
Skalska, J., 1827
Slijper, M., 857
Smal, C., 573
Smart, D., 143
Smith, P.T., 2081
Smolenski, A., 397
Snider, M., 1407
Soars, M.G., 1251
Sobel, B.E., 1907
Söderberg, M., 1653
Soeda, S., 173
Soliman, K.F.A., 1719
Soltysiak, K.A., 923
Son, K.-H., 1343
Song, D.-Q., 1691
Song, H.Y., 657
Song, J.-S., 2009
Song, Z.H., 1077
Souto, M.L., 1451
Sparmann, G., 1295
Spasokoukotskaja, T., 237, 563, 2031
Spinelli, F., 1495
Squella, J.A., 999
Squires, M.S., 361
Steels, B., 303
Staub, M., 563, 2031
Stein, J., 1151
Steinfelder, H.J., 603
Stierum, R.H., 857
Stojanova, A., 2055
Stolze, K., 43
Stoner, J.A., 637
Strange, P.G., 1139
Strom, R., 1271
Sturm, B., 1973
Sugawara, F., 259
Sugawara, T., 1907
Sumegi, B., 1115, 1373
Sun, F., 101
Sundaram, U., 1529
Suntres, Z., 1529
Supino, R., 1281
Sutton, L.N., 1943
Suzuki, H., 227
Suzuki, T., 795
Szabo, C., 1373
Szaszák, M., 1329
Szekeres, G., 1373
Szewczyk, A., 1827
Szikla, K., 563

Taioli, E., 441
Takahashi, K., 1181, 1181
Takahashi, M., 1097
Takahashi, N., 989
Takano, M., 1017
Takayama, F., 625
Takayama, Y., 2065
Takeuchi, T., 1507
Talianidis, I., 2031
Tamai, H., 339
Tamiru, D., 603
Tanigawa, N., 173

Tapodi, A., 1115
Tarikuz Zaman, A.K.M., 1907
Tavares de Lima, W., 2073
Teisseyre, A., 551
Teng, C.-M., 1897
Teplova, V.V., 43
Terada, H., 995
Terencio, M.C., 887
Terlouw, S.A., 1393
Terry, E.S., 611
Tew, K.D., 1611
Thomae, B.A., 1787
Tian, Y., 1507
Tillement, J.-P., 1643
Tokumaru, S., 101
Torti, F.M., 1261
Torti, S.V., 1261
Toth, A., 1115
Townsend, A.J., 1261
Toyohira, Y., 2049
Trask, H.W., 545
Trevino, A.V., 503
Trinh, L., 1407
Trumbeckaite, S., 911
Tsai, S.-H., 1053
Tseng, C.-H., 319
Tseng, W.-P., 131
Tsutsui, C., 101
Tsutsui, M., 2049
Tucker, S.J., 91
Tudor, G., 1061

Uckun, F.M., 1709
Udilova, N., 59
Ueno, S., 2049
Uezono, Y., 2049
Urakami, T., 67
Utsumi, K., 339
Utsunomiya, K., 2049

Vakkuri, O., 1463
Valiaeva, N., 315
van Bladeren, P.J., 857
van den Berg, T.K., 877
Van den Berghe, G., 573
Van Den Neste, E., 573
van der Pol, S.M.A., 877
van Eijndhoven, M.A.J., 275
van Ommen, B., 857
van Tol, E.A.F., 877
van Waardenburg, R.C.A.M., 275
Vandenabeele, P., 91
Vanderheyden, P., 1339
Vanderheyden, P.M.L., 1329
Varbiro, G., 1115, 1373
Vardi, P., 1797
Vartanian, A.A., 227
Vauquelin, G., 1329, 1339
Veerman, A.J.P., 765
Veres, B., 1115, 1373
Verheijen, I., 1339
Vezin, H., 25
Vicat, J.-M., 423
Vicente, A.M., 905
Vieytes, M.R., 193, 389, 465
Vilariño, N., 389
Villar, J., 1451
Vincent, T.S., 1603
Viossat, I., 423
Vojtesek, B., 1305
Vollkommer, T., 397
Voorzanger, N., 121
Vorobeychik, M., 1797

Wait, M., 1747
Walle, T., 1603
Walls, A.F., 1007
Walter, U., 397
Wan, Y.-P., 1515
Wang, D., 1767
Wang, H.-Z., 709
Wang, J.-P., 1043, 1923
Wang, W., 1967
Wang, X.-Y., 709
Wang, Y., 1163
Wang, Z., 1767
Waters, S.J., 503
Watson, M.-A., 1463
Wattanapitayakul, S.K., 1189
Wattel, A., 35
Wattez, N., 25
Weber, C., 161
Wege, D., 1215
Wei, G., 1761
Weinshilboum, R.M., 1787
Welker, M.E., 1261
Wernet, D., 1521
Wieben, E.D., 1787
Wiegert, R.L., 535
Williamson, G., 479, 1199
Wise, A., 1103
Witcher, D.R., 657
Witt-Enderby, P.A., 731
Wouters, J., 1867
Woynarowska, B.A., 503
Woynarowski, J.M., 503
Wright, J.E., 1427
Wroblewski, V.J., 657
Wu, M.-J., 319
Wu, S.-N., 581
Wu, Y.-C., 319
Wyczechowska, D., 219

Xie, L.-P., 709
Xin, W., 51
Xu, X., 259
Xu, Y.-J., 2091
Xu, Z.-H., 1787

Yamada, K., 339
Yamada, T., 1181
Yamamoto, S., 339
Yamasaki, M., 989
Yamazaki, N., 995
Yanagihara, N., 2049
Yang, X.-P., 933
Yano, M., 2065
Yao, S., 1967
Yasumori, T., 1843
Yasumoto, T., 193
Yavrians, K., 1797
Yayama, K., 1017
Yin, J., 51
Yin, L., 1691
Yoshida, H., 259
Yoshida, S., 795
Yoshimura, R., 2049
Yoshioka, T., 339
Young, J.A.T., 309
Yu, J.G., 1529
Yuan, C.-S., 1761
Yun-Choi, H.S., 457
Yurasek, G.K., 1427

Zanier, R., 1281
Zhang, R.-Q., 709
Zhang, W., 1889
Zhao, B., 51
Zhao, C., 1967
Zhao, R., 1163
Zhao, Y., 51
Zheng, R., 1967
Zhou, G., 51
Zhou, S., 109, 1853
Zieher, L.M., 15
Zierz, S., 911
Zini, R., 1643
Zoumakis, E., 917
Zsila, F., 447
Zucchi, R., 783
Zuco, V., 1281
Zunino, F., 1281
Zurier, R.B., 649

ELSEVIER

Biochemical Pharmacology 65 (2003) 2121–2148

Biochemical Pharmacology

www.elsevier.com/locate/biochempharm

Subject index Volume 65

Accumulation
Cellular uptake of a catechol iron chelator and chloroquine into *Plasmodium falciparum* infected erythrocytes, 1351
Acetoacetate
Expression of acetoacetyl-CoA synthetase, a novel cytosolic ketone body-utilizing enzyme, in human brain, 989
Acetoacetyl-CoA synthetase
Expression of acetoacetyl-CoA synthetase, a novel cytosolic ketone body-utilizing enzyme, in human brain, 989
Acetylcholine
Cooperative enhancement of insulinotropic action of GLP-1 by acetylcholine uncovers paradoxical inhibitory effect of beta cell muscarinic receptor activation on adenylate cyclase activity, 283
Acetylcholinesterase
Sarin (nerve agent GB)-induced differential expression of mRNA coding for the acetylcholinesterase gene in the rat central nervous system, 2041
Acetylcholinesterase inhibitors
β-Amyloid aggregation induced by human acetylcholinesterase: inhibition studies, 407
Acetyl-CoA carboxylase
Involvement of nitric oxide/cyclic GMP signaling pathway in the regulation of fatty acid metabolism in rat hepatocytes, 807
N-Acetylcysteine
Activation of deoxycytidine kinase by UV-C-irradiation in chronic lymphocytic leukemia B-lymphocytes, 573
Heme oxygenase-1 induction and regulation in unstimulated mouse peritoneal macrophages, 905
Acetylsalicylic acid (ASA)
Effect of metamizol on promyelocytic and terminally differentiated granulocytic cells. Comparative analysis with acetylsalicylic acid and diclofenac, 209
Actin disassembling
Regulation of mastoparan-induced increase of paracellular permeability in T84 cells by RhoA and basolateral potassium channels, 1151
Activation
Characterization of the molecular interactions of interleukin-8 (CXCL8), growth related oncogen α (CXCL1) and a non-peptide antagonist (SB 225002) with the human CXCR2, 813
Acute exposure
Sarin (nerve agent GB)-induced differential expression of mRNA coding for the acetylcholinesterase gene in the rat central nervous system, 2041
Adenosine
Use of the A_{2A} adenosine receptor as a physiological immunosuppressor and to engineer inflammation *in vivo*, 493
Analysis of A2a receptor-deficient mice reveals no significant compensatory increases in the expression of A2b, A1, and A3 adenosine receptors in lymphoid organs, 2081
Adenosine receptor
Peptide G protein agonists from a phage display library, 961
Differential allosteric modulation by amiloride analogues of agonist and antagonist binding at A_1 and A_3 adenosine receptors, 525
Rabbit chronic ileitis leads to up-regulation of adenosine *A1/A3* gene products, oxidative stress, and immune modulation, 1529
Analysis of A2a receptor-deficient mice reveals no significant compensatory increases in the expression of A2b, A1, and A3 adenosine receptors in lymphoid organs, 2081
S-adenosylmethionine
Effect of acute betaine administration on hepatic metabolism of *S*-amino acids in rats and mice, 1565
Adenylyl cyclase
Comparison of the pharmacological antagonism of M_2 and M_3 muscarinic receptors expressed in isolation and in combination, 1227
Adipocyte
Diminished production of nitric oxide synthase cofactor tetrahydrobiopterin by rosiglitazone in adipocytes, 593
Intracellular signal transduction modulating expression of plasminogen activator inhibitor-1 in adipocytes, 1907
Adipocyte differentiation
Differential effects of YM440 a hypoglycemic agent on binding to a peroxisome proliferator-activated receptor γ and its transactivation, 795
Adjuvant-arthritis
LAAE-14, a new *in vitro* inhibitor of intracellular calcium mobilization, modulates acute and chronic inflammation, 1539
Adrenal cortex
Transcriptional suppression of the adrenal cortical peripheral-type benzodiazepine receptor gene and inhibition of steroid synthesis by ginkgolide B, 717
Adrenal medullary cells
Inhibition of the norepinephrine transporter function in cultured bovine adrenal medullary cells by bisphenol A, 2049
Adrenergic
Adrenergic receptors in the bovine mammary artery, 1747
β-Adrenergic receptor
Altered lymphocyte catecholamine reactivity in mice subjected to chronic mild stress, 15
AEBS
Insulin and estrogen receptor ligand influence the FGF-2 activities in MCF-7 breast cancer cells, 629
Affinity
Affinity of cyamemazine, an anxiolytic antipsychotic drug, for human recombinant dopamine vs. serotonin receptor subtypes, 435
African American
Effect of genotype on steady-state *CYP1A1* gene expression in human peripheral lymphocytes, 441
Agonist binding
Interaction of the D_{2short} dopamine receptor with G proteins: analysis of receptor/G protein selectivity, 1139
Ah receptor
p23 enhances the formation of the aryl hydrocarbon receptor–DNA complex, 941
AIDS
Thyroxine-derivatives of lipopeptides: bifunctional dimerization inhibitors of human immunodeficiency virus-1 protease, 1097

doi:10.1016/S0006-2952(03)00325-3

Ajulemic acid
Suppression of human monocyte interleukin-1β production by ajulemic acid, a nonpsychoactive cannabinoid, 649
Akt
Cholesteryl-hemisuccinate-induced apoptosis of promyelocytic leukemia HL-60 cells through a cyclosporin A-insensitive mechanism, 339
Akt/PKB
Relevance of mitogen activated protein kinase (MAPK) and phosphotidylinositol-3-kinase/protein kinase B (PI3K/PKB) pathways to induction of apoptosis by curcumin in breast cells, 361
Akt/protein kinase B
Decrease of the inflammatory response and induction of the Akt/protein kinase B pathway by poly-(ADP-ribose) polymerase 1 inhibitor in endotoxin-induced septic shock, 1373
Aldosterone
Receptor-mediated adrenocorticoid hormone signaling in ocular tissues, 1207
Alimta
Decreased expression of the reduced folate carrier and folypolyglutamate synthetase is the basis for acquired resistance to the pemetrexed antifolate (LY231514) in an L1210 murine leukemia cell line, 1163
Allopurinol
Indomethacin-induced free radical-mediated changes in the intestinal brush border membranes, 683
Allosteric modulation
Differential allosteric modulation by amiloride analogues of agonist and antagonist binding at A_1 and A_3 adenosine receptors, 525
Alzheimer's disease
β-Amyloid aggregation induced by human acetylcholinesterase: inhibition studies, 407
Statin effects on cholesterol micro-domains in brain plasma membranes, 843
Amiloride
Differential allosteric modulation by amiloride analogues of agonist and antagonist binding at A_1 and A_3 adenosine receptors, 525
Receptor-mediated adrenocorticoid hormone signaling in ocular tissues, 1207
N^{α}-(4-Amino-4-deoxypteroyl)-N^{δ}-hemiphthaloyl-L-ornithine (PT523) and analogs
Further studies on the interaction of nonpolyglutamatable aminopterin analogs with dihydrofolate reductase and the reduced folate carrier as determinants of *in vitro* antitumor activity, 1427
5-Aminolevulinic acid
Uroporphyrin accumulation in hepatoma cells expressing human or mouse CYP1A2: relation to the role of CYP1A2 in human porphyria cutanea tarda, 545
Amiodarone
Concentration dependent mitochondrial effect of amiodarone, 1115
cAMP
Evaluation of β-adrenergic receptor subtypes in the human prostate cancer cell line-LNCaP, 1489
Amperometry
An amperometric biosensor with human CYP3A4 as a novel drug screening tool, 1817
β-Amyloid (1–40)
β-Amyloid aggregation induced by human acetylcholinesterase: inhibition studies, 407
Amyloidosis
Multidisciplinary utilization of dimethyl sulfoxide: pharmacological, cellular, and molecular aspects, 1035
Anaphylaxis
Endogenous nitric oxide does not modulate mesenteric mast cell degranulation in rats, 2073
Androgen receptor
Inhibition of cytokine production by the herbicide atrazine. Search for nuclear receptor targets, 303
Angiogenesis
Oversulfation of fucoidan enhances its anti-angiogenic and antitumor activities, 173
Anthrax toxin receptor proteins, 309
Angiotensin
Down-regulation of bradykinin B_2-receptor mRNA in the heart in pressure-overload cardiac hypertrophy in the rat, 1017
Angiotensin II
Effects of angiotensin II on vascular endothelial cells: formation of receptor-mediated reactive nitrogen species, 1189
A two-state model of antagonist-AT_1 receptor interaction: further support by binding studies at low temperature, 1339
Interaction of dimercaptosuccinic acid (DMSA) with angiotensin II on calcium mobilization in vascular smooth muscle cells, 1741
Annonaceous acetogenin
Bullatacin, a potent antitumor Annonaceous acetogenin, induces apoptosis through a reduction of intracellular cAMP and cGMP levels in human hepatoma 2.2.15 cells, 319
ANP
Inhibition of leptin release by atrial natriuretic peptide (ANP) in human adipocytes, 1883
Antagonist
Small molecule antagonists of proteins, 1
Broad-spectrum chemokine inhibitors (BSCIs) and their anti-inflammatory effects *in vivo*, 1027
A two-state model of antagonist-AT_1 receptor interaction: further support by binding studies at low temperature, 1339
Anthocyanins
Delphinidin inhibits endothelial cell proliferation and cell cycle progression through a transient activation of ERK-1/-2, 669
Anthracyclines
Cytosolic β-glycosidases for activation of glycoside prodrugs of daunorubicin, 1875
Anthrax toxin
Anthrax toxin receptor proteins, 309
Anticoagulant
Discovery and characterization of a potent and selective non-amidine inhibitor of human factor Xa, 1407
Anti-estrogen
Insulin and estrogen receptor ligand influence the FGF-2 activities in MCF-7 breast cancer cells, 629
Anti-Fas Ab
An oxidative mechanism of interferon induced priming of the Fas pathway in Fanconi anemia cells, 833
Antifolate
Potent inhibition of human folylpolyglutamate synthetase by a phosphinic acid mimic of the tetrahedral reaction intermediate, 315
Decreased expression of the reduced folate carrier and folypolyglutamate synthetase is the basis for acquired resistance to the pemetrexed antifolate (LY231514) in an L1210 murine leukemia cell line, 1163
Antifolate resistance
Decreased expression of the reduced folate carrier and folypolyglutamate synthetase is the basis for acquired resistance to the pemetrexed antifolate (LY231514) in an L1210 murine leukemia cell line, 1163
Anti-HIV protein
High resolution X-ray structure of potent anti-HIV pokeweed antiviral protein-III, 1709
Anti-inflammatory activity
The effect of sesquiterpene lactones on the release of human neutrophil elastase, 897
Antimetabolites
Influence of p53 and $p21^{WAF1}$ expression on sensitivity of cancer cells to cladribine, 121
Antimicrotubule
Inhibition of microtubule polymerization by 3-bromopropionylamino benzoylurea (JIMB01), a new cancericidal tubulin ligand, 1691

Antioxidant
Sodium tanshinone IIA sulfonate mediates electron transfer reaction in rat heart mitochondria, 51
The antioxidant activity of caroverine, 59
Antioxidant and pro-oxidant properties of pyrroloquinoline quinone (PQQ): implications for its function in biological systems, 67
Inhibition of 15-lipoxygenases by flavonoids: structure–activity relations and mode of action, 773
A novel antioxidant, octyl caffeate, suppression of LPS/IFN-γ-induced inducible nitric oxide synthase gene expression in rat aortic smooth muscle cells, 1383
Rabbit chronic ileitis leads to up-regulation of adenosine *A1/A3* gene products, oxidative stress, and immune modulation, 1529
Antiproteases
Thyroxine-derivatives of lipopeptides: bifunctional dimerization inhibitors of human immunodeficiency virus-1 protease, 1097
Antitoxin
Anthrax toxin receptor proteins, 309
α1-Antitrypsin
The fusion of IGF I with stromal cell-derived factor I or α1 proteinase inhibitor alters their mitogenic or chemotactic activities while keeping their ability to inhibit HIV-1-gp120 binding, 2055
Antitumor
Antitumor effect of the cinnamaldehyde derivative CB403 through the arrest of cell cycle progression in the G_2/M phase, 1343
Antitumor activity
Cellular bases of the antitumor activity of a 7-substituted camptothecin in hormone-refractory human prostate carcinoma models, 1281
Antitumor drug
Plasma stability of two glycosyl indolocarbazole antitumor agents, 25
Recognition of DNA modified by antitumor cisplatin by "latent" and "active" protein p53, 1305
Antitumor quinones
Cytotoxicity and apoptosis of benzoquinones: redox cycling, cytochrome *c* release, and BAD protein expression, 1061
Aortic constriction
Down-regulation of bradykinin B_2-receptor mRNA in the heart in pressure-overload cardiac hypertrophy in the rat, 1017
Ap_4A
The involvement of diadenosine 5′,5‴-P^1,P^4-tetraphosphate in cell cycle arrest and regulation of apoptosis, 227
Apoptosis
Potent inhibitory effect of naturally occurring flavonoids quercetin and kaempferol on *in vitro* osteoclastic bone resorption, 35
Modulation by caspases of tumor necrosis factor-stimulated c-Jun N-terminal kinase activation but not nuclear factor-κB signaling, 91
Evaluation of oxidative stress during apoptosis and necrosis caused by D-galactosamine in rat liver, 101
Influence of p53 and $p21^{WAF1}$ expression on sensitivity of cancer cells to cladribine, 121
Pyridoxal isonicotinoyl hydrazone analogs induce apoptosis in hematopoietic cells due to their iron-chelating properties, 161
The involvement of diadenosine 5′,5‴-P^1,P^4-tetraphosphate in cell cycle arrest and regulation of apoptosis, 227
Bullatacin, a potent antitumor Annonaceous acetogenin, induces apoptosis through a reduction of intracellular cAMP and cGMP levels in human hepatoma 2.2.15 cells, 319
Cholesteryl-hemisuccinate-induced apoptosis of promyelocytic leukemia HL-60 cells through a cyclosporin A-insensitive mechanism, 339
Apoptosis and TRAF-1 cleavage in Epstein-Barr virus-positive nasopharyngeal carcinoma cells treated with doxorubicin combined with a farnesyl-transferase inhibitor, 423
Apoptosis induction by the dual-action DNA- and protein-reactive antitumor drug irofulven is largely Bcl-2-independent, 503
Impaired receptor-mediated endocytosis by the asialoglycoprotein receptor in ethanol-fed mice: implications for studying the role of this receptor in alcoholic apoptosis, 535
Decoy receptor 3 (DcR3) is proteolytically processed to a metabolic fragment having differential activities against Fas ligand and LIGHT, 657
Osthole prevents anti-Fas antibody-induced hepatitis in mice by affecting the caspase-3-mediated apoptotic pathway, 677
Apoptotic cell death induction by F 11782 a novel dual catalytic inhibitor of topoisomerases I and II, 755
An oxidative mechanism of interferon induced priming of the Fas pathway in Fanconi anemia cells, 833
Corticotropin-releasing hormone (CRH) and immunotolerance of the fetus, 917
Tumor necrosis factor α-induced apoptosis in astrocytes is prevented by the activation of $P2Y_6$, but not $P2Y_4$ nucleotide receptors, 923
Cytotoxicity and apoptosis of benzoquinones: redox cycling, cytochrome *c* release, and BAD protein expression, 1061
Two-step formation of ^{1}H NMR visible mobile lipids during apoptosis of paclitaxel-treated K562 cells, 1271
Cellular bases of the antitumor activity of a 7-substituted camptothecin in hormone-refractory human prostate carcinoma models, 1281
Induction of apoptosis in estrogen dependent and independent breast cancer cells by the marine terpenoid dehydrothyrsiferol, 1451
N-Acetylcysteine enhances UV-mediated caspase-3 activation, fragmentation of E2F-4, and apoptosis in human C8161 melanoma: inhibition by ectopic Bcl-2 expression, 1593
Mechanisms involved in exogenous C2- and C6-ceramide-induced cancer cell toxicity, 1633
Inhibition of microtubule polymerization by 3-bromopropionylamino benzoylurea (JIMB01), a new cancericidal tubulin ligand, 1691
Non-caspase-mediated apoptosis contributes to the potent cytotoxicity of the enediyne antibiotic lidamycin toward human tumor cells, 1767
Enforced expression of the tumor suppressor p53 renders human leukemia cells (U937) more sensitive to 1-[β-D-arabinofuranosyl]cytosine (ara-C)-induced apoptosis, 1997
Reduced concentrations of serum enhance the antiproliferative activity of retinoid-related molecules and accelerate the onset of apoptosis, 2021
Ara-C
Enforced expression of the tumor suppressor p53 renders human leukemia cells (U937) more sensitive to 1-[β-D-arabinofuranosyl]cytosine (ara-C)-induced apoptosis, 1997
Arnt
p23 enhances the formation of the aryl hydrocarbon receptor–DNA complex, 941
Arvanil
Effect of arvanil (*N*-arachidonoyl-vanillyl-amine), a nonpungent anandamide–capsaicin hybrid, on ion currents in NG108-15 neuronal cells, 581
Aryl hydrocarbon receptor
Quantitative analysis of the Ah receptor/cytochrome P450 CYP1B1/CYP1A1 signalling pathway, 1663
Asialoglycoprotein receptor
Impaired receptor-mediated endocytosis by the asialoglycoprotein receptor in ethanol-fed mice: implications for studying the role of this receptor in alcoholic apoptosis, 535
Asialoglycoprotein receptor-deficient mouse
Impaired receptor-mediated endocytosis by the asialoglycoprotein receptor in ethanol-fed mice: implications for studying the role of this receptor in alcoholic apoptosis, 535
Astrocyte
U50,488 inhibits HIV-1 Tat-induced monocyte chemoattractant protein-1 (CCL2) production by human astrocytes, 9
Inflammation and inducible nitric oxide synthase have no effect on monoamine oxidase activity in glioma cells, 1719
AT_1 receptor
Peptide and nonpeptide antagonist interaction with constitutively active human AT_1 receptors, 1329
A two-state model of antagonist-AT_1 receptor interaction: further support by binding studies at low temperature, 1339

ATR
Anthrax toxin receptor proteins, 309
Atrazine
Inhibition of cytokine production by the herbicide atrazine. Search for nuclear receptor targets, 303
Atrophy
TNF-α induces apoptosis of parietal cells, 1755

Baclofen
Pharmacological characterisation of a cell line expressing $GABA_{B1b}$ and $GABA_{B2}$ receptor subunits, 1103
Baculovirus
The fusion of IGF I with stromal cell-derived factor I or α1 proteinase inhibitor alters their mitogenic or chemotactic activities while keeping their ability to inhibit HIV-1-gp120 binding, 2055
BAD protein
Cytotoxicity and apoptosis of benzoquinones: redox cycling, cytochrome *c* release, and BAD protein expression, 1061
BCECF
Dimethylsphingosine increases cytosolic calcium and intracellular pH in human T lymphocytes, 465
Bcl-2
The involvement of diadenosine 5′,5‴-P^1,P^4-tetraphosphate in cell cycle arrest and regulation of apoptosis, 227
Bcl-2 overexpression
Apoptosis induction by the dual-action DNA- and protein-reactive antitumor drug irofulven is largely Bcl-2-independent, 503
Benzothiophene-anthranilamide
Discovery and characterization of a potent and selective non-amidine inhibitor of human factor Xa, 1407
Beta cell
Cooperative enhancement of insulinotropic action of GLP-1 by acetylcholine uncovers paradoxical inhibitory effect of beta cell muscarinic receptor activation on adenylate cyclase activity, 283
bHLH
Interaction of upstream stimulatory factor proteins with an E-box located within the human *CYP1A2* 5′-flanking gene contributes to basal transcriptional gene activation, 1087
Bicarbonate
The Cl^- HCO_3^- exchanger slows the recovery of acute pH_i changes in rat mast cells, 389
Bid
Cholesteryl-hemisuccinate-induced apoptosis of promyelocytic leukemia HL-60 cells through a cyclosporin A-insensitive mechanism, 339
Bile acid glucosidation
Glucosidation of hyodeoxycholic acid by UDP-glucuronosyltransferase 2B7, 417
Binding
Characterization of the molecular interactions of interleukin-8 (CXCL8), growth related oncogen α (CXCL1) and a non-peptide antagonist (SB 225002) with the human CXCR2, 813
Bioreductive drugs
Improved potency of the hypoxic cytotoxin tirapazamine by DNA-targeting, 1807
Biosensor
An amperometric biosensor with human CYP3A4 as a novel drug screening tool, 1817
Bisphenol A
Inhibition of the norepinephrine transporter function in cultured bovine adrenal medullary cells by bisphenol A, 2049
Blasticidin
The fusion of IGF I with stromal cell-derived factor I or α1 proteinase inhibitor alters their mitogenic or chemotactic activities while keeping their ability to inhibit HIV-1-gp120 binding, 2055
BMPs
Daidzein enhances osteoblast growth that may be mediated by increased bone morphogenetic protein (BMP) production, 709
Bombyxin
The fusion of IGF I with stromal cell-derived factor I or α1 proteinase inhibitor alters their mitogenic or chemotactic activities while keeping their ability to inhibit HIV-1-gp120 binding, 2055
Bone resorption
Potent inhibitory effect of naturally occurring flavonoids quercetin and kaempferol on *in vitro* osteoclastic bone resorption, 35
Borneol
Inhibition of acetylcholine-mediated effects by borneol, 83
Bovine
Adrenergic receptors in the bovine mammary artery, 1747
Bovine adrenal chromaffin cells
Inhibition of acetylcholine-mediated effects by borneol, 83
Bradykinin receptor
Down-regulation of bradykinin B_2-receptor mRNA in the heart in pressure-overload cardiac hypertrophy in the rat, 1017
Brain
Antioxidants significantly affect the formation of different classes of isoprostanes and neuroprostanes in rat cerebral synaptosomes, 611
Statin effects on cholesterol micro-domains in brain plasma membranes, 843
BrdU incorporation
Induction of apoptosis in estrogen dependent and independent breast cancer cells by the marine terpenoid dehydrothyrsiferol, 1451
Breast cancer
Insulin and estrogen receptor ligand influence the FGF-2 activities in MCF-7 breast cancer cells, 629
Induction of apoptosis in estrogen dependent and independent breast cancer cells by the marine terpenoid dehydrothyrsiferol, 1451
Breast carcinoma MCF-7 cells
Non-caspase-mediated apoptosis contributes to the potent cytotoxicity of the enediyne antibiotic lidamycin toward human tumor cells, 1767
Breast cells
Relevance of mitogen activated protein kinase (MAPK) and phosphotidylinositol-3-kinase/protein kinase B (PI3K/PKB) pathways to induction of apoptosis by curcumin in breast cells, 361
Bromobenzene
Toxicogenomics of bromobenzene hepatotoxicity: a combined transcriptomics and proteomics approach, 857
Bromovinyldeoxyuridine (BVdU)
Cellular transformation of the investigational new anticancer drug NB1011, a phosphoramidate of 5-(2-bromovinyl)-2′-deoxyuridine, results in modification of cellular proteins not DNA, 823
Brown adipose tissue
Expression profiles of three isoforms of inositol 1,4,5-trisphosphate receptor in brown adipose tissue of the rat, 995
Bullatacin
Bullatacin, a potent antitumor Annonaceous acetogenin, induces apoptosis through a reduction of intracellular cAMP and cGMP levels in human hepatoma 2.2.15 cells, 319
β-Bungarotoxin
Neuronal death signaling by β-bungarotoxin through the activation of the *N*-methyl-D-aspartate (NMDA) receptor and L-type calcium channel, 131

C6
Inflammation and inducible nitric oxide synthase have no effect on monoamine oxidase activity in glioma cells, 1719
C6 glioma
Molecular mechanisms for the activation of Ca^{2+}-permeable nonselective cation channels by endothelin-1 in C6 glioma cells, 1435
Ca^{2+}
Dual effect of ebselen on mitochondrial permeability transition, 1643
Ca^{2+} channels
ET_A receptor-mediated Ca^{2+} mobilisation in H9c2 cardiac cells, 783
Ca^{2+}-ATPase
Assessment of sarcoplasmic reticulum Ca^{2+}-uptake during the development of left ventricular hypertrophy, 933

Ca^{2+}-handling
Modification of intracellular free calcium in cultured A10 vascular smooth muscle cells by exogenous phosphatidic acid, 2091
Ca^{2+}-uptake
Assessment of sarcoplasmic reticulum Ca^{2+}-uptake during the development of left ventricular hypertrophy, 933
Caco-2 cells
Evidence of covalent binding of the dietary flavonoid quercetin to DNA and protein in human intestinal and hepatic cells, 1603
Calcitonin gene-related peptide
Role of nerve growth factor in the regulation of parotid cell differentiation induced by rat serum, 1507
Calcium
Dimethylsphingosine increases cytosolic calcium and intracellular pH in human T lymphocytes, 465
Calcium channels
Dihydropyridines as inhibitors of capacitative calcium entry in leukemic HL-60 cells, 329
Calcium mobilization
Interaction of dimercaptosuccinic acid (DMSA) with angiotensin II on calcium mobilization in vascular smooth muscle cells, 1741
Calcium overloading
Neuronal death signaling by β-bungarotoxin through the activation of the *N*-methyl-D-aspartate (NMDA) receptor and L-type calcium channel, 131
Calpain inhibitor
Calpain inhibitor (BSF 409425) diminishes ischemia/reperfusion-induced damage of rabbit heart mitochondria, 911
Calyculin A
Activation of deoxycytidine kinase by gamma-irradiation and inactivation by hyperosmotic shock in human lymphocytes, 2031
cAMP
Altered lymphocyte catecholamine reactivity in mice subjected to chronic mild stress, 15
Yessotoxin, a novel phycotoxin, activates phosphodiesterase activity. Effect of yessotoxin on cAMP levels in human lymphocytes, 193
Cooperative enhancement of insulinotropic action of GLP-1 by acetylcholine uncovers paradoxical inhibitory effect of beta cell muscarinic receptor activation on adenylate cyclase activity, 283
Bullatacin, a potent antitumor Annonaceous acetogenin, induces apoptosis through a reduction of intracellular cAMP and cGMP levels in human hepatoma 2.2.15 cells, 319
Endothelium-dependent and -independent relaxation and VASP serines 157/239 phosphorylation by cyclic nucleotide-elevating vasodilators in rat aorta, 397
Investigation of the cellular mechanism of inhibition of formyl-methionyl-leucyl-phenylalanine-induced superoxide anion generation in rat neutrophils by 2-benzyloxybenzaldehyde, 1043
Pharmacological characterisation of a cell line expressing $GABA_{B1b}$ and $GABA_{B2}$ receptor subunits, 1103
Role of nerve growth factor in the regulation of parotid cell differentiation induced by rat serum, 1507
Long-term-desensitization of prostacyclin receptors is independent of the C-terminal tail, 1991
Camptothecins
Cellular bases of the antitumor activity of a 7-substituted camptothecin in hormone-refractory human prostate carcinoma models, 1281
Cancer
Cellular transformation of the investigational new anticancer drug NB1011, a phosphoramidate of 5-(2-bromovinyl)-2′-deoxyuridine, results in modification of cellular proteins not DNA, 823
Cancer cells
Mechanisms involved in exogenous C2- and C6-ceramide-induced cancer cell toxicity, 1633
Cancer chemotherapy
Cytosolic β-glycosidases for activation of glycoside prodrugs of daunorubicin, 1875
Cancer immunotherapy
Use of the A_{2A} adenosine receptor as a physiological immunosuppressor and to engineer inflammation *in vivo*, 493
Cannabinoid
Suppression of human monocyte interleukin-1β production by ajulemic acid, a nonpsychoactive cannabinoid, 649
Novel selective and metabolically stable inhibitors of anandamide cellular uptake, 1473
Integrity of extracellular loop 1 of the human cannabinoid receptor 1 is critical for high-affinity binding of the ligand CP 55,940 but not SR 141716A, 1623
Cannabinoid receptor
Effects of D3.49A, R3.50A, and A6.34E mutations on ligand binding and activation of the cannabinoid-2 (CB2) receptor, 1077
Integrity of extracellular loop 1 of the human cannabinoid receptor 1 is critical for high-affinity binding of the ligand CP 55,940 but not SR 141716A, 1623
Expression of the murine CB_2 cannabinoid receptor using a recombinant Semliki Forest virus, 1931
Capacitative calcium influx
Dihydropyridines as inhibitors of capacitative calcium entry in leukemic HL-60 cells, 329
Carbohydrate
Plasma stability of two glycosyl indolocarbazole antitumor agents, 25
Cardiomyocytes
K-ATP channel independent effects of pinacidil on ATP production in isolated cardiomyocyte or pancreatic β-cell mitochondria, 1835
Carnitine palmitoyltransferase I
Involvement of nitric oxide/cyclic GMP signaling pathway in the regulation of fatty acid metabolism in rat hepatocytes, 807
Caroverine
The antioxidant activity of caroverine, 59
Cartilage
Effects of rhein on human articular chondrocytes in alginate beads, 377
Caspase-3
Evaluation of oxidative stress during apoptosis and necrosis caused by D-galactosamine in rat liver, 101
Osthole prevents anti-Fas antibody-induced hepatitis in mice by affecting the caspase-3-mediated apoptotic pathway, 677
Caspase
Cholesteryl-hemisuccinate-induced apoptosis of promyelocytic leukemia HL-60 cells through a cyclosporin A-insensitive mechanism, 339
Tumor necrosis factor α-induced apoptosis in astrocytes is prevented by the activation of $P2Y_6$, but not $P2Y_4$ nucleotide receptors, 923
Mechanisms involved in exogenous C2- and C6-ceramide-induced cancer cell toxicity, 1633
Non-caspase-mediated apoptosis contributes to the potent cytotoxicity of the enediyne antibiotic lidamycin toward human tumor cells, 1767
Caspase activation
Structure activity analysis of the pro-apoptotic, antitumor effect of nitrostyrene adducts and related compounds, 603
Caspase-3 substrates
N-Acetylcysteine enhances UV-mediated caspase-3 activation, fragmentation of E2F-4, and apoptosis in human C8161 melanoma: inhibition by ectopic Bcl-2 expression, 1593
Catalase
Selection of insulin-producing rat insulinoma (RINm) cells with improved resistance to oxidative stress, 1797
Catecholamines
Altered lymphocyte catecholamine reactivity in mice subjected to chronic mild stress, 15
Cathepsin G
The inhibition of mast cell activation by neutrophil lactoferrin: uptake by mast cells and interaction with tryptase, chymase and cathepsin G, 1007
Cation entry
Characterization of maleimide-activated Ca^{2+} entry in neutrophils, 1923

Caveolin-1
Delphinidin inhibits endothelial cell proliferation and cell cycle progression through a transient activation of ERK-1/-2, 669
CB1
Integrity of extracellular loop 1 of the human cannabinoid receptor 1 is critical for high-affinity binding of the ligand CP 55,940 but not SR 141716A, 1623
CB_2 receptor
Expression of the murine CB_2 cannabinoid receptor using a recombinant Semliki Forest virus, 1931
CB_2 receptor expression
Expression of the murine CB_2 cannabinoid receptor using a recombinant Semliki Forest virus, 1931
CB_2 receptor protein
Expression of the murine CB_2 cannabinoid receptor using a recombinant Semliki Forest virus, 1931
C2C12
Beneficial effects of L-carnitine in myoblastic C2C12 cells. Interaction with zidovudine, 1483
CCY1a
Investigation of the cellular mechanism of inhibition of formyl-methionyl-leucyl-phenylalanine-induced superoxide anion generation in rat neutrophils by 2-benzyloxybenzaldehyde, 1043
CD69
Effect of sesquiterpene lactones on the expression of the activation marker CD69 and of IL-2 in T-lymphocytes in whole blood, 1551
CDC25A
Resveratrol-induced G_2 arrest through the inhibition of CDK7 and $p34^{CDC2}$ kinases in colon carcinoma HT29 cells, 1053
CDK7
Resveratrol-induced G_2 arrest through the inhibition of CDK7 and $p34^{CDC2}$ kinases in colon carcinoma HT29 cells, 1053
cDNA expression array
Delivery of pharmacologically active dexamethasone into activated endothelial cells by dexamethasone–anti-E-selectin immunoconjugate, 1729
cDNA microarray
Toxicogenomics of bromobenzene hepatotoxicity: a combined transcriptomics and proteomics approach, 857
Cell culture
Taurine transporter in primary cultured neonatal rat heart cells: a comparison between cardiac myocytes and nonmyocytes, 1181
Cell cycle
The involvement of diadenosine 5′,5‴-P^1,P^4-tetraphosphate in cell cycle arrest and regulation of apoptosis, 227
Relevance of mitogen activated protein kinase (MAPK) and phosphotidylinositol-3-kinase/protein kinase B (PI3K/PKB) pathways to induction of apoptosis by curcumin in breast cells, 361
Delphinidin inhibits endothelial cell proliferation and cell cycle progression through a transient activation of ERK-1/-2, 669
Multidisciplinary utilization of dimethyl sulfoxide: pharmacological, cellular, and molecular aspects, 1035
Resveratrol-induced G_2 arrest through the inhibition of CDK7 and $p34^{CDC2}$ kinases in colon carcinoma HT29 cells, 1053
Antitumor effect of the cinnamaldehyde derivative CB403 through the arrest of cell cycle progression in the G_2/M phase, 1343
Cell cycle distribution of apoptotic cells
Induction of apoptosis in estrogen dependent and independent breast cancer cells by the marine terpenoid dehydrothyrsiferol, 1451
Cell death
Antioxidant and pro-oxidant properties of pyrroloquinoline quinone (PQQ): implications for its function in biological systems, 67
Influence of p53 and $p21^{WAF1}$ expression on sensitivity of cancer cells to cladribine, 121
Tumor necrosis factor α-induced apoptosis in astrocytes is prevented by the activation of $P2Y_6$, but not $P2Y_4$ nucleotide receptors, 923
Cell differentiation
Daidzein enhances osteoblast growth that may be mediated by increased bone morphogenetic protein (BMP) production, 709
Multidisciplinary utilization of dimethyl sulfoxide: pharmacological, cellular, and molecular aspects, 1035
Cell viability
Daidzein enhances osteoblast growth that may be mediated by increased bone morphogenetic protein (BMP) production, 709
Cell-free DCFH system
Evaluation of the probes 2′,7′-dichlorofluorescin diacetate, luminol, and lucigenin as indicators of reactive species formation, 1575
β-Cells
K-ATP channel independent effects of pinacidil on ATP production in isolated cardiomyocyte or pancreatic β-cell mitochondria, 1835
Cellular free Ca^{2+}
Investigation of the cellular mechanism of inhibition of formyl-methionyl-leucyl-phenylalanine-induced superoxide anion generation in rat neutrophils by 2-benzyloxybenzaldehyde, 1043
CEM-SS
The involvement of diadenosine 5′,5‴-P^1,P^4-tetraphosphate in cell cycle arrest and regulation of apoptosis, 227
Central nervous system
Mitochondrial uncoupling protein 2 in the central nervous system: neuromodulator and neuroprotector, 1917
Sarin (nerve agent GB)-induced differential expression of mRNA coding for the acetylcholinesterase gene in the rat central nervous system, 2041
Centrally mediated
Opioid-induced immunosuppression: is it centrally mediated or peripherally mediated?, 1761
Ceramide
Mechanisms involved in exogenous C2- and C6-ceramide-induced cancer cell toxicity, 1633
Cerebellum
Modulation of [^{3}H] TBOB binding to the rodent $GABA_A$ receptor by simple disaccharides, 619
c-*fos*
Activation of the coactivator four-and-a-half-LIM-only protein FHL2 and the c-*fos* promoter through inhibition of protein phosphatase 2A, 1317
cGMP
Bullatacin, a potent antitumor Annonaceous acetogenin, induces apoptosis through a reduction of intracellular cAMP and cGMP levels in human hepatoma 2.2.15 cells, 319
Endothelium-dependent and -independent relaxation and VASP serines 157/239 phosphorylation by cyclic nucleotide-elevating vasodilators in rat aorta, 397
Charybdotoxin
Large-conductance K^+ channel openers NS1619 and NS004 as inhibitors of mitochondrial function in glioma cells, 1827
Chemokine
Broad-spectrum chemokine inhibitors (BSCIs) and their anti-inflammatory effects *in vivo*, 1027
Chemoprevention
Oxathiolene oxides: a novel family of compounds that induce ferritin, glutathione *S*-transferase, and other proteins of the phase II response, 1261
Chemotherapy
Apoptosis and TRAF-1 cleavage in Epstein-Barr virus-positive nasopharyngeal carcinoma cells treated with doxorubicin combined with a farnesyl-transferase inhibitor, 423
Cellular transformation of the investigational new anticancer drug NB1011, a phosphoramidate of 5-(2-bromovinyl)-2′-deoxyuridine, results in modification of cellular proteins not DNA, 823
Cellular uptake of a catechol iron chelator and chloroquine into *Plasmodium falciparum* infected erythrocytes, 1351
Inhibition of microtubule polymerization by 3-bromopropionylamino benzoylurea (JIMB01), a new cancericidal tubulin ligand, 1691

2-Chloro-2′-deoxyadenosine
Activation of deoxycytidine kinase by UV-C-irradiation in chronic lymphocytic leukemia B-lymphocytes, 573
CHO cells
Melatonin differentially modulates the expression and function of the hMT_1 and hMT_2 melatonin receptors upon prolonged withdrawal, 731
Peptide and nonpeptide antagonist interaction with constitutively active human AT_1 receptors, 1329
A two-state model of antagonist-AT_1 receptor interaction: further support by binding studies at low temperature, 1339
Cholecystokinin
Established theory of radiation-induced decay is not generalizable to Bolton–Hunter labeled peptides, 1515
Cholesterol
Statin effects on cholesterol micro-domains in brain plasma membranes, 843
Cholesteryl-hemisuccinate
Cholesteryl-hemisuccinate-induced apoptosis of promyelocytic leukemia HL-60 cells through a cyclosporin A-insensitive mechanism, 339
Chondrocytes
Effects of rhein on human articular chondrocytes in alginate beads, 377
Chronic inflammation
Rabbit chronic ileitis leads to up-regulation of adenosine *A1/A3* gene products, oxidative stress, and immune modulation, 1529
Chronic mild stress
Altered lymphocyte catecholamine reactivity in mice subjected to chronic mild stress, 15
Chronic pancreatitis
Inhibition of pancreatic stellate cell activation by the hydroxymethylglutaryl coenzyme A reductase inhibitor lovastatin, 1295
Chymase
The inhibition of mast cell activation by neutrophil lactoferrin: uptake by mast cells and interaction with tryptase, chymase and cathepsin G, 1007
Polycationic peptides as inhibitors of mast cell serine proteases, 1171
Cinnamaldehyde
Antitumor effect of the cinnamaldehyde derivative CB403 through the arrest of cell cycle progression in the G_2/M phase, 1343
Circular dichroism
Probing the binding of the flavonoid, quercetin to human serum albumin by circular dichroism, electronic absorption spectroscopy and molecular modelling methods, 447
Cisplatin
DNA repair mechanisms involved in gemcitabine cytotoxicity and in the interaction between gemcitabine and cisplatin, 275
Recognition of DNA modified by antitumor cisplatin by "latent" and "active" protein p53, 1305
Cladribine
Influence of p53 and $p21^{WAF1}$ expression on sensitivity of cancer cells to cladribine, 121
The effects of cladribine and fludarabine on DNA methylation in K562 cells, 219
Down-regulation of deoxycytidine kinase in human leukemic cell lines resistant to cladribine and clofarabine and increased ribonucleotide reductase activity contributes to fludarabine resistance, 237
Clofarabine
Down-regulation of deoxycytidine kinase in human leukemic cell lines resistant to cladribine and clofarabine and increased ribonucleotide reductase activity contributes to fludarabine resistance, 237
Coexpression
Comparison of the pharmacological antagonism of M_2 and M_3 muscarinic receptors expressed in isolation and in combination, 1227
Collagen
Inhibition of the MEK/ERK pathway has no effect on agonist-induced aggregation of human platelets, 1243
Constitutive mutant
Peptide and nonpeptide antagonist interaction with constitutively active human AT_1 receptors, 1329
Constitutively active
Important amino acids for the function of the human MT1 melatonin receptor, 1463
COS1 cells
Long-term-desensitization of prostacyclin receptors is independent of the C-terminal tail, 1991
Coumarin
Osthole prevents anti-Fas antibody-induced hepatitis in mice by affecting the caspase-3-mediated apoptotic pathway, 677
Covalent binding
Evidence of covalent binding of the dietary flavonoid quercetin to DNA and protein in human intestinal and hepatic cells, 1603
CREB
Activation of the coactivator four-and-a-half-LIM-only protein FHL2 and the c-*fos* promoter through inhibition of protein phosphatase 2A, 1317
CRH
Corticotropin-releasing hormone (CRH) and immunotolerance of the fetus, 917
Cryopreservation
Multidisciplinary utilization of dimethyl sulfoxide: pharmacological, cellular, and molecular aspects, 1035
Curcumin
Relevance of mitogen activated protein kinase (MAPK) and phosphotidylinositol-3-kinase/protein kinase B (PI3K/PKB) pathways to induction of apoptosis by curcumin in breast cells, 361
CXCL1
Characterization of the molecular interactions of interleukin-8 (CXCL8), growth related oncogen α (CXCL1) and a non-peptide antagonist (SB 225002) with the human CXCR2, 813
CXCL8
Characterization of the molecular interactions of interleukin-8 (CXCL8), growth related oncogen α (CXCL1) and a non-peptide antagonist (SB 225002) with the human CXCR2, 813
CXCL12
The fusion of IGF I with stromal cell-derived factor I or α1 proteinase inhibitor alters their mitogenic or chemotactic activities while keeping their ability to inhibit HIV-1-gp120 binding, 2055
Cyamemazine
Affinity of cyamemazine, an anxiolytic antipsychotic drug, for human recombinant dopamine vs. serotonin receptor subtypes, 435
Cyclic AMP
Differential allosteric modulation by amiloride analogues of agonist and antagonist binding at A_1 and A_3 adenosine receptors, 525
Comparison of the pharmacological antagonism of M_2 and M_3 muscarinic receptors expressed in isolation and in combination, 1227
N^6-Substituted adenosine derivatives: selectivity, efficacy, and species differences at A_3 adenosine receptors, 1675
Analysis of A2a receptor-deficient mice reveals no significant compensatory increases in the expression of A2b, A1, and A3 adenosine receptors in lymphoid organs, 2081
Cyclic GMP
Involvement of nitric oxide/cyclic GMP signaling pathway in the regulation of fatty acid metabolism in rat hepatocytes, 807
Inhibition of leptin release by atrial natriuretic peptide (ANP) in human adipocytes, 1883
Cyclic voltammetry
An amperometric biosensor with human CYP3A4 as a novel drug screening tool, 1817
Cyclin
Antitumor effect of the cinnamaldehyde derivative CB403 through the arrest of cell cycle progression in the G_2/M phase, 1343
Cyclin D/CDK4
Induction of G1 phase arrest in MCF human breast cancer cells by pentagalloylglucose through the down-regulation of CDK4 and CDK2 activities and up-regulation of the CDK inhibitors $p27^{Kip}$ and $p21^{Cip}$, 1777

Cyclin E/CDK2
Induction of G1 phase arrest in MCF human breast cancer cells by pentagalloylglucose through the down-regulation of CDK4 and CDK2 activities and up-regulation of the CDK inhibitors $p27^{Kip}$ and $p21^{Cip}$, 1777
Cyclooxygenase
Advances in the pathophysiology of constitutive and inducible cyclooxygenases: two enzymes in the spotlight, 153
Novel anti-inflammatory actions of nobiletin, a citrus polymethoxy flavonoid, on human synovial fibroblasts and mouse macrophages, 2065
Cyclooxygenase-2
Regulation of cyclooxygenase-2 expression by iloprost in human vascular smooth muscle cells. Role of transcription factors CREB and ICER, 979
Cyclopiazonic acid
Characterization of maleimide-activated Ca^{2+} entry in neutrophils, 1923
CYP
Preclinical factors affecting the interindividual variability in the clearance of the investigational anti-cancer drug 5,6-dimethylxanthenone-4-acetic acid, 1853
CYP24
Metabolism of 26,26,26,27,27,27-F_6-1α,25-dihydroxyvitamin D_3 by CYP24: species-based difference between humans and rats, 1957
CYP1A2
Uroporphyrin accumulation in hepatoma cells expressing human or mouse CYP1A2: relation to the role of CYP1A2 in human porphyria cutanea tarda, 545
Interaction of upstream stimulatory factor proteins with an E-box located within the human *CYP1A2* 5′-flanking gene contributes to basal transcriptional gene activation, 1087
Cyp2a5
Interplay between transcriptional and post-transcriptional regulation of *Cyp2a5* expression, 1653
CYP3A4
An amperometric biosensor with human CYP3A4 as a novel drug screening tool, 1817
CYP1B1
Quantitative analysis of the Ah receptor/cytochrome P450 CYP1B1/CYP1A1 signalling pathway, 1663
Cysteine
Effect of acute betaine administration on hepatic metabolism of *S*-amino acids in rats and mice, 1565
Cysteine *S*-conjugate β-lyases
Human mitochondrial and cytosolic branched-chain aminotransferases are cysteine *S*-conjugate β-lyases, but turnover leads to inactivation, 181
Cysteine *S*-conjugates
Human mitochondrial and cytosolic branched-chain aminotransferases are cysteine *S*-conjugate β-lyases, but turnover leads to inactivation, 181
Cytochrome *c*
Cholesteryl-hemisuccinate-induced apoptosis of promyelocytic leukemia HL-60 cells through a cyclosporin A-insensitive mechanism, 339
Cytochrome *c* release
Cytotoxicity and apoptosis of benzoquinones: redox cycling, cytochrome *c* release, and BAD protein expression, 1061
Toxic effects of copper-based antineoplastic drugs (Casiopeinas®) on mitochondrial functions, 1979
Cytochrome P450
Vitamin E activates gene expression via the pregnane X receptor, 269
Effect of genotype on steady-state *CYP1A1* gene expression in human peripheral lymphocytes, 441
Interaction of upstream stimulatory factor proteins with an E-box located within the human *CYP1A2* 5′-flanking gene contributes to basal transcriptional gene activation, 1087
Quantitative analysis of the Ah receptor/cytochrome P450 CYP1B1/CYP1A1 signalling pathway, 1663
An amperometric biosensor with human CYP3A4 as a novel drug screening tool, 1817
In vivo activation of the human *CYP3A4* promoter in mouse liver and regulation by pregnane X receptors, 1889
Metabolism of 26,26,26,27,27,27-F_6-1α,25-dihydroxyvitamin D_3 by CYP24: species-based difference between humans and rats, 1957
Cytokine
Inhibition of cytokine production by the herbicide atrazine. Search for nuclear receptor targets, 303
Effects of rhein on human articular chondrocytes in alginate beads, 377
Use of the A_{2A} adenosine receptor as a physiological immunosuppressor and to engineer inflammation *in vivo*, 493
Tumor necrosis factor α-induced apoptosis in astrocytes is prevented by the activation of $P2Y_6$, but not $P2Y_4$ nucleotide receptors, 923
In vitro effects of mangiferin on superoxide concentrations and expression of the inducible nitric oxide synthase, tumour necrosis factor-α and transforming growth factor-β genes, 1361
Delivery of pharmacologically active dexamethasone into activated endothelial cells by dexamethasone–anti-E-selectin immunoconjugate, 1729
TNF-α induces apoptosis of parietal cells, 1755
Cytokine receptors
Modulation by caspases of tumor necrosis factor-stimulated c-Jun N-terminal kinase activation but not nuclear factor-κB signaling, 91
Cytoprotection
Activation of p53 by the cytoprotective aminothiol WR1065: DNA-damage-independent pathway and redox-dependent modulation of p53 DNA-binding activity, 1129
Cytosolic branched-chain aminotransferase
Human mitochondrial and cytosolic branched-chain aminotransferases are cysteine *S*-conjugate β-lyases, but turnover leads to inactivation, 181
Cytosolic calcium
Yessotoxin, a novel phycotoxin, activates phosphodiesterase activity. Effect of yessotoxin on cAMP levels in human lymphocytes, 193
Cytosolic β-glycosidase
Cytosolic β-glycosidases for activation of glycoside prodrugs of daunorubicin, 1875
Cytotoxicity
Cellular bases of the antitumor activity of a 7-substituted camptothecin in hormone-refractory human prostate carcinoma models, 1281

32D cells
The fusion of IGF I with stromal cell-derived factor I or α1 proteinase inhibitor alters their mitogenic or chemotactic activities while keeping their ability to inhibit HIV-1-gp120 binding, 2055
D_2 dopamine receptor
Interaction of the D_{2short} dopamine receptor with G proteins: analysis of receptor/G protein selectivity, 1139
Daidzein
Daidzein enhances osteoblast growth that may be mediated by increased bone morphogenetic protein (BMP) production, 709
De novo fatty acid synthesis
Effects of dehydroepiandrosterone on oleic acid accumulation in rat liver, 1583
Decidualization
Corticotropin-releasing hormone (CRH) and immunotolerance of the fetus, 917
Decitabine
The effects of cladribine and fludarabine on DNA methylation in K562 cells, 219
Decoy receptor 3
Decoy receptor 3 (DcR3) is proteolytically processed to a metabolic fragment having differential activities against Fas ligand and LIGHT, 657
Deglycosylation
Absorption of quercetin-3-glucoside and quercetin-4′-glucoside in the rat small intestine: the role of lactase phlorizin hydrolase and the sodium-dependent glucose transporter, 1199
Dehydroepiandrosterone
Effects of dehydroepiandrosterone on oleic acid accumulation in rat liver, 1583

Dehydrothyrsiferol (DT)
Induction of apoptosis in estrogen dependent and independent breast cancer cells by the marine terpenoid dehydrothyrsiferol, 1451
Delayed rectifier K^+ current
Effect of arvanil (*N*-arachidonoyl-vanillyl-amine), a nonpungent anandamide–capsaicin hybrid, on ion currents in NG108-15 neuronal cells, 581
Demyelination
Flavonoids inhibit myelin phagocytosis by macrophages; a structure–activity relationship study, 877
Dendrimers
"Multivalent" saccharides: development of new approaches for inhibiting the effects of glycosphingolipid-binding pathogens, 699
Deoxycytidine kinase
Down-regulation of deoxycytidine kinase in human leukemic cell lines resistant to cladribine and clofarabine and increased ribonucleotide reductase activity contributes to fludarabine resistance, 237
Selective activation of deoxycytidine kinase by thymidine-5′-thiosulphate and release by deoxycytidine in human lymphocytes, 563
Activation of deoxycytidine kinase by gamma-irradiation and inactivation by hyperosmotic shock in human lymphocytes, 2031
Deoxynucleoside salvage
Selective activation of deoxycytidine kinase by thymidine-5′-thiosulphate and release by deoxycytidine in human lymphocytes, 563
Dexamethasone
Delivery of pharmacologically active dexamethasone into activated endothelial cells by dexamethasone–anti-E-selectin immunoconjugate, 1729
Diabetes
Selection of insulin-producing rat insulinoma (RINm) cells with improved resistance to oxidative stress, 1797
Diabetic nephropathy
Effects of high glucose on cytokine-induced nerve growth factor (NGF) expression in rat renal mesangial cells, 293
2′,7′-Dichlorofluorescin diacetate
Evaluation of the probes 2′,7′-dichlorofluorescin diacetate, luminol, and lucigenin as indicators of reactive species formation, 1575
DIDS
The Cl^-/HCO_3^- exchanger slows the recovery of acute pH_i changes in rat mast cells, 389
Difference spectra
Monoamine oxidase A inhibitory potency and flavin perturbation are influenced by different aspects of pirlindole inhibitor structure, 1867
Differential expression
Quantitative analysis of the Ah receptor/cytochrome P450 CYP1B1/CYP1A1 signalling pathway, 1663
Differentiation
Resistance to phorbol 12-myristate 13-acetate-induced cell growth arrest in an HL60 cell line chronically exposed to a glutathione *S*-transferase π inhibitor, 1611
Dihydrofolate reductase
Further studies on the interaction of nonpolyglutamatable aminopterin analogs with dihydrofolate reductase and the reduced folate carrier as determinants of *in vitro* antitumor activity, 1427
Dihydrolipoic acid
Reactive oxygen species are involved in the stimulation of the mitochondrial permeability transition by dihydrolipoate, 43
Dihydropyridines
Dihydropyridines as inhibitors of capacitative calcium entry in leukemic HL-60 cells, 329
Dimercaptosuccinic acid
Interaction of dimercaptosuccinic acid (DMSA) with angiotensin II on calcium mobilization in vascular smooth muscle cells, 1741
Dimerization inhibitors
Thyroxine-derivatives of lipopeptides: bifunctional dimerization inhibitors of human immunodeficiency virus-1 protease, 1097
Dimethyl sulfoxide
Multidisciplinary utilization of dimethyl sulfoxide: pharmacological, cellular, and molecular aspects, 1035
Dimethyl sulphoxide (DMSO)
Effect of metamizol on promyelocytic and terminally differentiated granulocytic cells. Comparative analysis with acetylsalicylic acid and diclofenac, 209
N,N-Dimethyl-D-erythro-sphingosine
Dimethylsphingosine increases cytosolic calcium and intracellular pH in human T lymphocytes, 465
DMXAA
Preclinical factors influencing the relative contributions of Phase I and II enzymes to the metabolism of the experimental anti-cancer drug 5,6-dimethylxanthenone-4-acetic acid, 109
Preclinical factors affecting the interindividual variability in the clearance of the investigational anti-cancer drug 5,6-dimethylxanthenone-4-acetic acid, 1853
DNA and protein
Evidence of covalent binding of the dietary flavonoid quercetin to DNA and protein in human intestinal and hepatic cells, 1603
DNA cleavage
Non-caspase-mediated apoptosis contributes to the potent cytotoxicity of the enediyne antibiotic lidamycin toward human tumor cells, 1767
DNA damage
Recognition of DNA modified by antitumor cisplatin by "latent" and "active" protein p53, 1305
Fast repair of deoxythymidine radical anions by two polyphenols: rutin and quercetin, 1967
DNA damage pathway
Activation of p53 by the cytoprotective aminothiol WR1065: DNA-damage-independent pathway and redox-dependent modulation of p53 DNA-binding activity, 1129
DNA fragmentation
Structure activity analysis of the pro-apoptotic, antitumor effect of nitrostyrene adducts and related compounds, 603
DNA methylation
The effects of cladribine and fludarabine on DNA methylation in K562 cells, 219
DNA polymerase
Effects of glycolipids from spinach on mammalian DNA polymerases, 259
DNA repair
DNA repair mechanisms involved in gemcitabine cytotoxicity and in the interaction between gemcitabine and cisplatin, 275
Selective activation of deoxycytidine kinase by thymidine-5′-thiosulphate and release by deoxycytidine in human lymphocytes, 563
Activation of deoxycytidine kinase by UV-C-irradiation in chronic lymphocytic leukemia B-lymphocytes, 573
Activation of deoxycytidine kinase by gamma-irradiation and inactivation by hyperosmotic shock in human lymphocytes, 2031
DNA-targeting
Improved potency of the hypoxic cytotoxin tirapazamine by DNA-targeting, 1807
Dog UGT2B31
Cloning and characterisation of the first drug-metabolising canine UDP-glucuronosyltransferase of the 2B subfamily, 1251
Doxorubicin
Apoptosis and TRAF-1 cleavage in Epstein-Barr virus-positive nasopharyngeal carcinoma cells treated with doxorubicin combined with a farnesyl-transferase inhibitor, 423
Deregulation of gene expression in fetal oocytes exposed to doxorubicin, 1701
DRE
p23 enhances the formation of the aryl hydrocarbon receptor–DNA complex, 941
Drug design
Small molecule antagonists of proteins, 1

Drug interference
Vitamin E activates gene expression via the pregnane X receptor, 269
Drug metabolism
The effect of valproic acid on drug and steroid glucuronidation by expressed human UDP-glucuronosyltransferases, 1441
In vivo activation of the human *CYP3A4* promoter in mouse liver and regulation by pregnane X receptors, 1889
Drug resistance
Influence of p53 and $p21^{WAF1}$ expression on sensitivity of cancer cells to cladribine, 121
Drug-induced apoptosis
Structure activity analysis of the pro-apoptotic, antitumor effect of nitrostyrene adducts and related compounds, 603
Drug-targeting
Delivery of pharmacologically active dexamethasone into activated endothelial cells by dexamethasone–anti-E-selectin immunoconjugate, 1729
dT radical anion
Fast repair of deoxythymidine radical anions by two polyphenols: rutin and quercetin, 1967
Dual inhibitor
Apoptotic cell death induction by F 11782 a novel dual catalytic inhibitor of topoisomerases I and II, 755
Dual inhibition of topoisomerase I and tubulin polymerization by BPR0Y007, a novel cytotoxic agent, 2009

E-box
Interaction of upstream stimulatory factor proteins with an E-box located within the human *CYP1A2* 5′-flanking gene contributes to basal transcriptional gene activation, 1087
Ebselen
Dual effect of ebselen on mitochondrial permeability transition, 1643
E2F-4 fragmentation
N-Acetylcysteine enhances UV-mediated caspase-3 activation, fragmentation of E2F-4, and apoptosis in human C8161 melanoma: inhibition by ectopic Bcl-2 expression, 1593
E2F-1 induction
N-Acetylcysteine enhances UV-mediated caspase-3 activation, fragmentation of E2F-4, and apoptosis in human C8161 melanoma: inhibition by ectopic Bcl-2 expression, 1593
Efflux
Human MDR1 polymorphism: G2677T/A and C3435T have no effect on MDR1 transport activities, 1843
EGFR kinase activity
Effect of *in vivo* administered hexachlorobenzene on epidermal growth factor receptor levels, protein tyrosine kinase activity, and phosphotyrosine content in rat liver, 1495
EGFR levels
Effect of *in vivo* administered hexachlorobenzene on epidermal growth factor receptor levels, protein tyrosine kinase activity, and phosphotyrosine content in rat liver, 1495
Eicosanoid
Antioxidants significantly affect the formation of different classes of isoprostanes and neuroprostanes in rat cerebral synaptosomes, 611
Electron spin resonance (ESR)
Sodium tanshinone IIA sulfonate mediates electron transfer reaction in rat heart mitochondria, 51
Electron transfer
Fast repair of deoxythymidine radical anions by two polyphenols: rutin and quercetin, 1967
Electrophile responsive element
Oxathiolene oxides: a novel family of compounds that induce ferritin, glutathione *S*-transferase, and other proteins of the phase II response, 1261
Endocannabinoid
Novel selective and metabolically stable inhibitors of anandamide cellular uptake, 1473
Endometrium
Corticotropin-releasing hormone (CRH) and immunotolerance of the fetus, 917
Endothelial cell (human umbilical vein)
Oversulfation of fucoidan enhances its anti-angiogenic and antitumor activities, 173
Endothelial cell proliferation
Delphinidin inhibits endothelial cell proliferation and cell cycle progression through a transient activation of ERK-1/-2, 669
Endothelial cells
Delivery of pharmacologically active dexamethasone into activated endothelial cells by dexamethasone–anti-E-selectin immunoconjugate, 1729
Endothelin
Molecular mechanisms for the activation of Ca^{2+}-permeable nonselective cation channels by endothelin-1 in C6 glioma cells, 1435
Endothelin receptors
ET_A receptor-mediated Ca^{2+} mobilisation in H9c2 cardiac cells, 783
Endothelium
Endothelium-dependent and -independent relaxation and VASP serines 157/239 phosphorylation by cyclic nucleotide-elevating vasodilators in rat aorta, 397
Effects of angiotensin II on vascular endothelial cells: formation of receptor-mediated reactive nitrogen species, 1189
Endotoxic shock
A novel antioxidant, octyl caffeate, suppression of LPS/IFN-γ-induced inducible nitric oxide synthase gene expression in rat aortic smooth muscle cells, 1383
Energy expenditure
Expression profiles of three isoforms of inositol 1,4,5-trisphosphate receptor in brown adipose tissue of the rat, 995
Engineering
Use of the A_{2A} adenosine receptor as a physiological immunosuppressor and to engineer inflammation *in vivo*, 493
Enteric nervous system
Rabbit chronic ileitis leads to up-regulation of adenosine *A1/A3* gene products, oxidative stress, and immune modulation, 1529
Environmental estrogens
Inhibition of the norepinephrine transporter function in cultured bovine adrenal medullary cells by bisphenol A, 2049
Enzyme activation
Activation of deoxycytidine kinase by gamma-irradiation and inactivation by hyperosmotic shock in human lymphocytes, 2031
Enzyme inhibitor
Effects of glycolipids from spinach on mammalian DNA polymerases, 259
Enzyme modulation
Selective activation of deoxycytidine kinase by thymidine-5′-thiosulphate and release by deoxycytidine in human lymphocytes, 563
erg-Mediated current
Effect of arvanil (*N*-arachidonoyl-vanillyl-amine), a nonpungent anandamide–capsaicin hybrid, on ion currents in NG108-15 neuronal cells, 581
ERK-1/-2
Delphinidin inhibits endothelial cell proliferation and cell cycle progression through a transient activation of ERK-1/-2, 669
Erythrocytes
Iron and transition metal transport into erythrocytes mediated by nifedipine degradation products and related compounds, 1215
Esculetin
Esculetin inhibits Ras-mediated cell proliferation and attenuates vascular restenosis following angioplasty in rats, 1897
ESR
The antioxidant activity of caroverine, 59
17β-Estradiol
Inhibition of the norepinephrine transporter function in cultured bovine adrenal medullary cells by bisphenol A, 2049

Estrogen
Insulin and estrogen receptor ligand influence the FGF-2 activities in MCF-7 breast cancer cells, 629
Daidzein enhances osteoblast growth that may be mediated by increased bone morphogenetic protein (BMP) production, 709
Ethanol
Impaired receptor-mediated endocytosis by the asialoglycoprotein receptor in ethanol-fed mice: implications for studying the role of this receptor in alcoholic apoptosis, 535
N-Ethylmaleimide
Characterization of maleimide-activated Ca^{2+} entry in neutrophils, 1923
Extracellular loop
Integrity of extracellular loop 1 of the human cannabinoid receptor 1 is critical for high-affinity binding of the ligand CP 55,940 but not SR 141716A, 1623
Extracellular signal-regulated kinase
Resistance to phorbol 12-myristate 13-acetate-induced cell growth arrest in an HL60 cell line chronically exposed to a glutathione *S*-transferase π inhibitor, 1611
Eye
Receptor-mediated adrenocorticoid hormone signaling in ocular tissues, 1207

F 11782
Apoptotic cell death induction by F 11782 a novel dual catalytic inhibitor of topoisomerases I and II, 755
FAAH
Novel selective and metabolically stable inhibitors of anandamide cellular uptake, 1473
Fanconi anemia
An oxidative mechanism of interferon induced priming of the Fas pathway in Fanconi anemia cells, 833
Farnesyl-transferase inhibitors
Apoptosis and TRAF-1 cleavage in Epstein-Barr virus-positive nasopharyngeal carcinoma cells treated with doxorubicin combined with a farnesyl-transferase inhibitor, 423
Fas
Osthole prevents anti-Fas antibody-induced hepatitis in mice by affecting the caspase-3-mediated apoptotic pathway, 677
Fas ligand
Decoy receptor 3 (DcR3) is proteolytically processed to a metabolic fragment having differential activities against Fas ligand and LIGHT, 657
FasL
Corticotropin-releasing hormone (CRH) and immunotolerance of the fetus, 917
Fast repair
Fast repair of deoxythymidine radical anions by two polyphenols: rutin and quercetin, 1967
Fatty acid metabolism
Involvement of nitric oxide/cyclic GMP signaling pathway in the regulation of fatty acid metabolism in rat hepatocytes, 807
Fatty acid oxidation
Effects of dehydroepiandrosterone on oleic acid accumulation in rat liver, 1583
Ferritin
Oxathiolene oxides: a novel family of compounds that induce ferritin, glutathione *S*-transferase, and other proteins of the phase II response, 1261
Influence of parenteral iron preparations on non-transferrin bound iron uptake, the iron regulatory protein and the expression of ferritin and the divalent metal transporter DMT-1 in HepG2 human hepatoma cells, 1973
Ferrous iron transporter
Influence of parenteral iron preparations on non-transferrin bound iron uptake, the iron regulatory protein and the expression of ferritin and the divalent metal transporter DMT-1 in HepG2 human hepatoma cells, 1973
Fetal oocyte
Deregulation of gene expression in fetal oocytes exposed to doxorubicin, 1701
FGF-2
Insulin and estrogen receptor ligand influence the FGF-2 activities in MCF-7 breast cancer cells, 629
FHL2
Activation of the coactivator four-and-a-half-LIM-only protein FHL2 and the c-*fos* promoter through inhibition of protein phosphatase 2A, 1317
Fibrillogenesis
β-Amyloid aggregation induced by human acetylcholinesterase: inhibition studies, 407
Fibrinolysis
Intracellular signal transduction modulating expression of plasminogen activator inhibitor-1 in adipocytes, 1907
Fibroblasts
Taurine transporter in primary cultured neonatal rat heart cells: a comparison between cardiac myocytes and nonmyocytes, 1181
Fibrosis
Inhibition of pancreatic stellate cell activation by the hydroxymethylglutaryl coenzyme A reductase inhibitor lovastatin, 1295
Flavin
Monoamine oxidase A inhibitory potency and flavin perturbation are influenced by different aspects of pirlindole inhibitor structure, 1867
Flavones
Inhibition of 15-lipoxygenases by flavonoids: structure–activity relations and mode of action, 773
Flavonoid
Potent inhibitory effect of naturally occurring flavonoids quercetin and kaempferol on *in vitro* osteoclastic bone resorption, 35
Metabolism of quercetin-7- and quercetin-3-glucuronides by an *in vitro* hepatic model: the role of human β-glucuronidase, sulfotransferase, catechol-*O*-methyltransferase and multi-resistant protein 2 (MRP2) in flavonoid metabolism, 479
Flavonoids inhibit myelin phagocytosis by macrophages; a structure–activity relationship study, 877
Absorption of quercetin-3-glucoside and quercetin-4′-glucoside in the rat small intestine: the role of lactase phlorizin hydrolase and the sodium-dependent glucose transporter, 1199
Evidence of covalent binding of the dietary flavonoid quercetin to DNA and protein in human intestinal and hepatic cells, 1603
Intracellular signal transduction modulating expression of plasminogen activator inhibitor-1 in adipocytes, 1907
Flavonols
Inhibition of 15-lipoxygenases by flavonoids: structure–activity relations and mode of action, 773
Flow cytometry
Effect of sesquiterpene lactones on the expression of the activation marker CD69 and of IL-2 in T-lymphocytes in whole blood, 1551
Fludarabine
The effects of cladribine and fludarabine on DNA methylation in K562 cells, 219
Down-regulation of deoxycytidine kinase in human leukemic cell lines resistant to cladribine and clofarabine and increased ribonucleotide reductase activity contributes to fludarabine resistance, 237
Fluorescein
Kinetic analysis of fluorescein and dihydrofluorescein effluxes in tumour cells expressing the multidrug resistance protein, MRP1, 969
Fluorescence imaging
Minimally modified phosphodiester antisense oligodeoxyribonucleotide directed against the multidrug resistance gene *mdr1*, 747
Fluorescence resonance excitation transfer
Minimally modified phosphodiester antisense oligodeoxyribonucleotide directed against the multidrug resistance gene *mdr1*, 747
Fluorometry
Interactions of peroxynitrite and other nitrating substances with human platelets: the role of glutathione and peroxynitrite permeability, 515

fMLP
The effect of sesquiterpene lactones on the release of human neutrophil elastase, 897
Folate homeostasis
The role of multidrug resistance proteins MRP1, MRP2 and MRP3 in cellular folate homeostasis, 765
Folic acid
The role of multidrug resistance proteins MRP1, MRP2 and MRP3 in cellular folate homeostasis, 765
Folylpolyglutamate synthetase
Potent inhibition of human folylpolyglutamate synthetase by a phosphinic acid mimic of the tetrahedral reaction intermediate, 315
Forebrain
Modulation of [^{3}H] TBOB binding to the rodent $GABA_A$ receptor by simple disaccharides, 619
Free radicals
Sodium tanshinone IIA sulfonate mediates electron transfer reaction in rat heart mitochondria, 51
Fucoidan
Oversulfation of fucoidan enhances its anti-angiogenic and antitumor activities, 173
Fura-2
Dimethylsphingosine increases cytosolic calcium and intracellular pH in human T lymphocytes, 465

G1 phase
Induction of G1 phase arrest in MCF human breast cancer cells by pentagalloylglucose through the down-regulation of CDK4 and CDK2 activities and up-regulation of the CDK inhibitors $p27^{Kip}$ and $p21^{Cip}$, 1777
G protein
Peptide G protein agonists from a phage display library, 961
Interaction of the D_{2short} dopamine receptor with G proteins: analysis of receptor/G protein selectivity, 1139
G protein-coupled receptor
Characterization of the molecular interactions of interleukin-8 (CXCL8), growth related oncogen α (CXCL1) and a non-peptide antagonist (SB 225002) with the human CXCR2, 813
Tumor necrosis factor α-induced apoptosis in astrocytes is prevented by the activation of $P2Y_6$, but not $P2Y_4$ nucleotide receptors, 923
Effects of D3.49A, R3.50A, and A6.34E mutations on ligand binding and activation of the cannabinoid-2 (CB2) receptor, 1077
Important amino acids for the function of the human MT1 melatonin receptor, 1463
Long-term-desensitization of prostacyclin receptors is independent of the C-terminal tail, 1991
GABA
Pharmacological characterisation of a cell line expressing $GABA_{B1b}$ and $GABA_{B2}$ receptor subunits, 1103
$GABA_A$ receptor
Modulation of [^{3}H] TBOB binding to the rodent $GABA_A$ receptor by simple disaccharides, 619
$GABA_B$ receptor
Pharmacological characterisation of a cell line expressing $GABA_{B1b}$ and $GABA_{B2}$ receptor subunits, 1103
Galactosamine
Evaluation of oxidative stress during apoptosis and necrosis caused by D-galactosamine in rat liver, 101
Galactoside
Cytosolic β-glycosidases for activation of glycoside prodrugs of daunorubicin, 1875
Gangliosides
"Multivalent" saccharides: development of new approaches for inhibiting the effects of glycosphingolipid-binding pathogens, 699
Gel shift assay
p23 enhances the formation of the aryl hydrocarbon receptor–DNA complex, 941
Gemcitabine
DNA repair mechanisms involved in gemcitabine cytotoxicity and in the interaction between gemcitabine and cisplatin, 275
Gene expression
Taurine transporter in primary cultured neonatal rat heart cells: a comparison between cardiac myocytes and nonmyocytes, 1181
In vivo activation of the human *CYP3A4* promoter in mouse liver and regulation by pregnane X receptors, 1889
Gene induction
Effect of genotype on steady-state *CYP1A1* gene expression in human peripheral lymphocytes, 441
Gene regulation
Vitamin E activates gene expression via the pregnane X receptor, 269
Deregulation of gene expression in fetal oocytes exposed to doxorubicin, 1701
Gene transcription
Transcriptional suppression of the adrenal cortical peripheral-type benzodiazepine receptor gene and inhibition of steroid synthesis by ginkgolide B, 717
Genetic polymorphisms
Pharmacogenetics of human 3′-phosphoadenosine 5′-phosphosulfate synthetase 1 (PAPSS1): gene resequencing, sequence variation, and functional genomics, 1787
Genotype frequencies
Frequent co-occurrence of the TATA box mutation associated with Gilbert's syndrome (*UGT*1A1*28) with other polymorphisms of the UDP-glucuronosyltransferase-1 locus (*UGT*1A6*2 and *UGT*1A7*3) in Caucasians and Egyptians, 1521
5GG
Induction of G1 phase arrest in MCF human breast cancer cells by pentagalloylglucose through the down-regulation of CDK4 and CDK2 activities and up-regulation of the CDK inhibitors $p27^{Kip}$ and $p21^{Cip}$, 1777
Gilbert's syndrome
Frequent co-occurrence of the TATA box mutation associated with Gilbert's syndrome (*UGT*1A1*28) with other polymorphisms of the UDP-glucuronosyltransferase-1 locus (*UGT*1A6*2 and *UGT*1A7*3) in Caucasians and Egyptians, 1521
Ginkgolide B
Transcriptional suppression of the adrenal cortical peripheral-type benzodiazepine receptor gene and inhibition of steroid synthesis by ginkgolide B, 717
20(*S*)-Ginsenoside Rg_3
Reversal of P-glycoprotein-mediated multidrug resistance by ginsenoside Rg_3, 75
Glioma cells
Large-conductance K^+ channel openers NS1619 and NS004 as inhibitors of mitochondrial function in glioma cells, 1827
GLP-1
Cooperative enhancement of insulinotropic action of GLP-1 by acetylcholine uncovers paradoxical inhibitory effect of beta cell muscarinic receptor activation on adenylate cyclase activity, 283
Glucagon-like peptide
Established theory of radiation-induced decay is not generalizable to Bolton–Hunter labeled peptides, 1515
Glucocorticoid
Inhibition of cytokine production by the herbicide atrazine. Search for nuclear receptor targets, 303
Receptor-mediated adrenocorticoid hormone signaling in ocular tissues, 1207
Glucoside
Cytosolic β-glycosidases for activation of glycoside prodrugs of daunorubicin, 1875
β-Glucuronidase
Metabolism of quercetin-7- and quercetin-3-glucuronides by an *in vitro* hepatic model: the role of human β-glucuronidase, sulfotransferase, catechol-*O*-methyltransferase and multi-resistant protein 2 (MRP2) in flavonoid metabolism, 479

Glucuronidation
Glucosidation of hyodeoxycholic acid by UDP-glucuronosyltransferase 2B7, 417
The effect of valproic acid on drug and steroid glucuronidation by expressed human UDP-glucuronosyltransferases, 1441
Glucuronides
Metabolism of quercetin-7- and quercetin-3-glucuronides by an *in vitro* hepatic model: the role of human β-glucuronidase, sulfotransferase, catechol-*O*-methyltransferase and multi-resistant protein 2 (MRP2) in flavonoid metabolism, 479
Glutathione
Interactions of peroxynitrite and other nitrating substances with human platelets: the role of glutathione and peroxynitrite permeability, 515
Protein glutathiolation in human blood, 741
Effect of acute betaine administration on hepatic metabolism of *S*-amino acids in rats and mice, 1565
Glutathione *S*-transferase
Oxathiolene oxides: a novel family of compounds that induce ferritin, glutathione *S*-transferase, and other proteins of the phase II response, 1261
Glutathione *S*-transferase π
Resistance to phorbol 12-myristate 13-acetate-induced cell growth arrest in an HL60 cell line chronically exposed to a glutathione *S*-transferase π inhibitor, 1611
Glycolipid
Effects of glycolipids from spinach on mammalian DNA polymerases, 259
Glycosphingolipid-binding pathogens
"Multivalent" saccharides: development of new approaches for inhibiting the effects of glycosphingolipid-binding pathogens, 699
Glycosphingolipids
"Multivalent" saccharides: development of new approaches for inhibiting the effects of glycosphingolipid-binding pathogens, 699
GPCR
N^6-Substituted adenosine derivatives: selectivity, efficacy, and species differences at A_3 adenosine receptors, 1675
G-protein
Molecular mechanisms for the activation of Ca^{2+}-permeable nonselective cation channels by endothelin-1 in C6 glioma cells, 1435
G-protein coupled receptor
Integrity of extracellular loop 1 of the human cannabinoid receptor 1 is critical for high-affinity binding of the ligand CP 55,940 but not SR 141716A, 1623
G-proteins
Dimethylsphingosine increases cytosolic calcium and intracellular pH in human T lymphocytes, 465
Melatonin differentially modulates the expression and function of the hMT_1 and hMT_2 melatonin receptors upon prolonged withdrawal, 731
Granulocytes
Effect of metamizol on promyelocytic and terminally differentiated granulocytic cells. Comparative analysis with acetylsalicylic acid and diclofenac, 209
GSH
An oxidative mechanism of interferon induced priming of the Fas pathway in Fanconi anemia cells, 833
Guinea-pig cerebellum
Affinity of cyamemazine, an anxiolytic antipsychotic drug, for human recombinant dopamine vs. serotonin receptor subtypes, 435

H-89
Inhibition of leptin release by atrial natriuretic peptide (ANP) in human adipocytes, 1883
Hairpin
Minimally modified phosphodiester antisense oligodeoxyribonucleotide directed against the multidrug resistance gene *mdr1*, 747
Halogenated alkenes
Human mitochondrial and cytosolic branched-chain aminotransferases are cysteine *S*-conjugate β-lyases, but turnover leads to inactivation, 181
Haplotype
Pharmacogenetics of human 3′-phosphoadenosine 5′-phosphosulfate synthetase 1 (PAPSS1): gene resequencing, sequence variation, and functional genomics, 1787
Haplotype frequencies
Frequent co-occurrence of the TATA box mutation associated with Gilbert's syndrome (*UGT*1A1*28) with other polymorphisms of the UDP-glucuronosyltransferase-1 locus (*UGT*1A6*2 and *UGT*1A7*3) in Caucasians and Egyptians, 1521
H9c2 cells
ET_A receptor-mediated Ca^{2+} mobilisation in H9c2 cardiac cells, 783
Heart
Calpain inhibitor (BSF 409425) diminishes ischemia/reperfusion-induced damage of rabbit heart mitochondria, 911
Helenalin A
Apoptosis induction by the dual-action DNA- and protein-reactive antitumor drug irofulven is largely Bcl-2-independent, 503
Heme oxygenase-1
Heme oxygenase-1 induction and regulation in unstimulated mouse peritoneal macrophages, 905
Hep G2 cells
Evidence of covalent binding of the dietary flavonoid quercetin to DNA and protein in human intestinal and hepatic cells, 1603
Heparin
Polycationic peptides as inhibitors of mast cell serine proteases, 1171
Hepatitis
Osthole prevents anti-Fas antibody-induced hepatitis in mice by affecting the caspase-3-mediated apoptotic pathway, 677
Hepatocarcinoma
Inhibition of microtubule polymerization by 3-bromopropionylamino benzoylurea (JIMB01), a new cancericidal tubulin ligand, 1691
Hepatocyte
Involvement of nitric oxide/cyclic GMP signaling pathway in the regulation of fatty acid metabolism in rat hepatocytes, 807
Hepatoma 2.2.15 cells
Bullatacin, a potent antitumor Annonaceous acetogenin, induces apoptosis through a reduction of intracellular cAMP and cGMP levels in human hepatoma 2.2.15 cells, 319
Hepatoma BEL-7402 cells
Non-caspase-mediated apoptosis contributes to the potent cytotoxicity of the enediyne antibiotic lidamycin toward human tumor cells, 1767
Hepatoma cells
Influence of parenteral iron preparations on non-transferrin bound iron uptake, the iron regulatory protein and the expression of ferritin and the divalent metal transporter DMT-1 in HepG2 human hepatoma cells, 1973
Hepatotoxicity
Toxicogenomics of bromobenzene hepatotoxicity: a combined transcriptomics and proteomics approach, 857
HepG2
Interaction of upstream stimulatory factor proteins with an E-box located within the human *CYP1A2* 5′-flanking gene contributes to basal transcriptional gene activation, 1087
HepG2 cells
Metabolism of quercetin-7- and quercetin-3-glucuronides by an *in vitro* hepatic model: the role of human β-glucuronidase, sulfotransferase, catechol-*O*-methyltransferase and multi-resistant protein 2 (MRP2) in flavonoid metabolism, 479
Hexachlorobenzene
Effect of *in vivo* administered hexachlorobenzene on epidermal growth factor receptor levels, protein tyrosine kinase activity, and phosphotyrosine content in rat liver, 1495
Hexafluoro-1α,25-dihydroxyvitamin D_3
Metabolism of 26,26,26,27,27,27-F_6-1α,25-dihydroxyvitamin D_3 by CYP24: species-based difference between humans and rats, 1957
High-energy phosphates
Concentration dependent mitochondrial effect of amiodarone, 1115

Histamine
The inhibition of mast cell activation by neutrophil lactoferrin: uptake by mast cells and interaction with tryptase, chymase and cathepsin G, 1007
HIV-1 protease
Thyroxine-derivatives of lipopeptides: bifunctional dimerization inhibitors of human immunodeficiency virus-1 protease, 1097
HL60
The involvement of diadenosine 5′,5‴-P^1,P^4-tetraphosphate in cell cycle arrest and regulation of apoptosis, 227
HL-60 cells
Cholesteryl-hemisuccinate-induced apoptosis of promyelocytic leukemia HL-60 cells through a cyclosporin A-insensitive mechanism, 339
hnRNP A1
Interplay between transcriptional and post-transcriptional regulation of *Cyp2a5* expression, 1653
H_2O_2
Activation of deoxycytidine kinase by UV-C-irradiation in chronic lymphocytic leukemia B-lymphocytes, 573
hsp90
p23 enhances the formation of the aryl hydrocarbon receptor–DNA complex, 941
Human
Modulation by caspases of tumor necrosis factor-stimulated c-Jun N-terminal kinase activation but not nuclear factor-κB signaling, 91
Metabolism of quercetin-7- and quercetin-3-glucuronides by an *in vitro* hepatic model: the role of human β-glucuronidase, sulfotransferase, catechol-*O*-methyltransferase and multi-resistant protein 2 (MRP2) in flavonoid metabolism, 479
Expression of acetoacetyl-CoA synthetase, a novel cytosolic ketone body-utilizing enzyme, in human brain, 989
Human β-adrenergic receptors
Evaluation of β-adrenergic receptor subtypes in the human prostate cancer cell line-LNCaP, 1489
Human blood
Protein glutathiolation in human blood, 741
Human factor Xa
Discovery and characterization of a potent and selective non-amidine inhibitor of human factor Xa, 1407
Human neutrophil elastase release
The effect of sesquiterpene lactones on the release of human neutrophil elastase, 897
Human neutrophils
LAAE-14, a new *in vitro* inhibitor of intracellular calcium mobilization, modulates acute and chronic inflammation, 1539
Human recombinant acetylcholinesterase
β-Amyloid aggregation induced by human acetylcholinesterase: inhibition studies, 407
Human serum albumin
Probing the binding of the flavonoid, quercetin to human serum albumin by circular dichroism, electronic absorption spectroscopy and molecular modelling methods, 447
Human synovial fibroblasts
Novel anti-inflammatory actions of nobiletin, a citrus polymethoxy flavonoid, on human synovial fibroblasts and mouse macrophages, 2065
Hydrogen peroxide
Selection of insulin-producing rat insulinoma (RINm) cells with improved resistance to oxidative stress, 1797
5-Hydroxydecanoate
K-ATP channel independent effects of pinacidil on ATP production in isolated cardiomyocyte or pancreatic β-cell mitochondria, 1835
Hydroxyl radicals
Cytotoxicity and apoptosis of benzoquinones: redox cycling, cytochrome *c* release, and BAD protein expression, 1061
3-Hydroxy-3-methylglutaryl-CoA reductase
Expression of acetoacetyl-CoA synthetase, a novel cytosolic ketone body-utilizing enzyme, in human brain, 989
Hyperglycemia
Effects of high glucose on cytokine-induced nerve growth factor (NGF) expression in rat renal mesangial cells, 293
Hypoglycemic agents
Differential effects of YM440 a hypoglycemic agent on binding to a peroxisome proliferator-activated receptor γ and its transactivation, 795
Hypoxia
Improved potency of the hypoxic cytotoxin tirapazamine by DNA-targeting, 1807
Hypoxia–reoxygenation
Interactions of peroxynitrite and other nitrating substances with human platelets: the role of glutathione and peroxynitrite permeability, 515
[^{3}H] TBOB
Modulation of [^{3}H] TBOB binding to the rodent $GABA_A$ receptor by simple disaccharides, 619

IFN-γ
An oxidative mechanism of interferon induced priming of the Fas pathway in Fanconi anemia cells, 833
IL-1β
Effects of high glucose on cytokine-induced nerve growth factor (NGF) expression in rat renal mesangial cells, 293
IL-2
Effect of sesquiterpene lactones on the expression of the activation marker CD69 and of IL-2 in T-lymphocytes in whole blood, 1551
Iloprost
Regulation of cyclooxygenase-2 expression by iloprost in human vascular smooth muscle cells. Role of transcription factors CREB and ICER, 979
Imaging
In vivo activation of the human *CYP3A4* promoter in mouse liver and regulation by pregnane X receptors, 1889
Immunosuppression
Opioid-induced immunosuppression: is it centrally mediated or peripherally mediated?, 1761
Implantation
Corticotropin-releasing hormone (CRH) and immunotolerance of the fetus, 917
In vitro
Apoptotic cell death induction by F 11782 a novel dual catalytic inhibitor of topoisomerases I and II, 755
In vivo
In vivo activation of the human *CYP3A4* promoter in mouse liver and regulation by pregnane X receptors, 1889
Indolocarbazole
Plasma stability of two glycosyl indolocarbazole antitumor agents, 25
Indomethacin
Indomethacin-induced free radical-mediated changes in the intestinal brush border membranes, 683
Induced chirality
Probing the binding of the flavonoid, quercetin to human serum albumin by circular dichroism, electronic absorption spectroscopy and molecular modelling methods, 447
Inducible nitric oxide synthase
Suppression of tumor necrosis factor-α and inducible nitric oxide synthase gene expression by THI 52, a new synthetic naphthyl-benzylisoquinoline alkaloid, 457
Induction
Preclinical factors influencing the relative contributions of Phase I and II enzymes to the metabolism of the experimental anti-cancer drug 5,6-dimethylxanthenone-4-acetic acid, 109
Inflammation
Modulation by caspases of tumor necrosis factor-stimulated c-Jun N-terminal kinase activation but not nuclear factor-κB signaling, 91
Advances in the pathophysiology of constitutive and inducible cyclooxygenases: two enzymes in the spotlight, 153

Use of the A_{2A} adenosine receptor as a physiological immunosuppressor and to engineer inflammation *in vivo*, 493
Suppression of human monocyte interleukin-1β production by ajulemic acid, a nonpsychoactive cannabinoid, 649
Flavonoids inhibit myelin phagocytosis by macrophages: a structure–activity relationship study, 877
Broad-spectrum chemokine inhibitors (BSCIs) and their anti-inflammatory effects *in vivo*, 1027
Multidisciplinary utilization of dimethyl sulfoxide: pharmacological, cellular, and molecular aspects, 1035
Inflammation and inducible nitric oxide synthase have no effect on monoamine oxidase activity in glioma cells, 1719
Delivery of pharmacologically active dexamethasone into activated endothelial cells by dexamethasone–anti-E-selectin immunoconjugate, 1729
Analysis of A2a receptor-deficient mice reveals no significant compensatory increases in the expression of A2b, A1, and A3 adenosine receptors in lymphoid organs, 2081

Inhibition
Preclinical factors influencing the relative contributions of Phase I and II enzymes to the metabolism of the experimental anti-cancer drug 5,6-dimethylxanthenone-4-acetic acid, 109
The effect of valproic acid on drug and steroid glucuronidation by expressed human UDP-glucuronosyltransferases, 1441
Preclinical factors affecting the interindividual variability in the clearance of the investigational anti-cancer drug 5,6-dimethylxanthenone-4-acetic acid, 1853

Inhibitor
Small molecule antagonists of proteins, 1
Resistance to phorbol 12-myristate 13-acetate-induced cell growth arrest in an HL60 cell line chronically exposed to a glutathione *S*-transferase π inhibitor, 1611

iNOS
A novel antioxidant, octyl caffeate, suppression of LPS/IFN-γ-induced inducible nitric oxide synthase gene expression in rat aortic smooth muscle cells, 1383

Inositol trisphosphate
Dihydropyridines as inhibitors of capacitative calcium entry in leukemic HL-60 cells, 329

Insulin
Cooperative enhancement of insulinotropic action of GLP-1 by acetylcholine uncovers paradoxical inhibitory effect of beta cell muscarinic receptor activation on adenylate cyclase activity, 283
Insulin and estrogen receptor ligand influence the FGF-2 activities in MCF-7 breast cancer cells, 629
Selection of insulin-producing rat insulinoma (RINm) cells with improved resistance to oxidative stress, 1797
Inhibition of leptin release by atrial natriuretic peptide (ANP) in human adipocytes, 1883

Insulin receptor
Development of insulin resistance and reversal by thiazolidinediones in C2C12 skeletal muscle cells, 249

Insulin receptor substrate-1
Development of insulin resistance and reversal by thiazolidinediones in C2C12 skeletal muscle cells, 249

Insulin resistance
Development of insulin resistance and reversal by thiazolidinediones in C2C12 skeletal muscle cells, 249
Diminished production of nitric oxide synthase cofactor tetrahydrobiopterin by rosiglitazone in adipocytes, 593

Insulin-producing cells
Selection of insulin-producing rat insulinoma (RINm) cells with improved resistance to oxidative stress, 1797

Insurmountable
Peptide and nonpeptide antagonist interaction with constitutively active human AT_1 receptors, 1329
A two-state model of antagonist-AT_1 receptor interaction: further support by binding studies at low temperature, 1339

Interaction
DNA repair mechanisms involved in gemcitabine cytotoxicity and in the interaction between gemcitabine and cisplatin, 275
The effect of valproic acid on drug and steroid glucuronidation by expressed human UDP-glucuronosyltransferases, 1441

Interindividual variation
Preclinical factors affecting the interindividual variability in the clearance of the investigational anti-cancer drug 5,6-dimethylxanthenone-4-acetic acid, 1853

Interleukin-2
Yessotoxin, a novel phycotoxin, activates phosphodiesterase activity. Effect of yessotoxin on cAMP levels in human lymphocytes, 193

Interleukin-1β
Suppression of human monocyte interleukin-1β production by ajulemic acid, a nonpsychoactive cannabinoid, 649

Internalization
Long-term-desensitization of prostacyclin receptors is independent of the C-terminal tail, 1991

Interplay
Interplay between transcriptional and post-transcriptional regulation of *Cyp2a5* expression, 1653

Intestinal absorption
Absorption of quercetin-3-glucoside and quercetin-4′-glucoside in the rat small intestine: the role of lactase phlorizin hydrolase and the sodium-dependent glucose transporter, 1199

Intestinal brush border membrane
Indomethacin-induced free radical-mediated changes in the intestinal brush border membranes, 683

Intracellular acidification
The $Cl^-HCO_3^-$ exchanger slows the recovery of acute pH_i changes in rat mast cells, 389

Intracellular alkalinization
The $Cl^-HCO_3^-$ exchanger slows the recovery of acute pH_i changes in rat mast cells, 389

Intracellular calcium
LAAE-14, a new *in vitro* inhibitor of intracellular calcium mobilization, modulates acute and chronic inflammation, 1539

Intracellular free Ca^{2+}
Characterization of maleimide-activated Ca^{2+} entry in neutrophils, 1923

Intracellular pH
The $Cl^-HCO_3^-$ exchanger slows the recovery of acute pH_i changes in rat mast cells, 389

Intracellular trypanothione scavengers
Trypanosoma cruzi: effect and mode of action of nitroimidazole and nitrofuran derivatives, 999

Ion channels
Large-conductance K^+ channel openers NS1619 and NS004 as inhibitors of mitochondrial function in glioma cells, 1827

IP_3 receptor
ET_A receptor-mediated Ca^{2+} mobilisation in H9c2 cardiac cells, 783
Expression profiles of three isoforms of inositol 1,4,5-trisphosphate receptor in brown adipose tissue of the rat, 995

Irofulven
Apoptosis induction by the dual-action DNA- and protein-reactive antitumor drug irofulven is largely Bcl-2-independent, 503

Iron
The antioxidant activity of caroverine, 59

Iron chelators
Pyridoxal isonicotinoyl hydrazone analogs induce apoptosis in hematopoietic cells due to their iron-chelating properties, 161
Lipophilicity of analogs of pyridoxal isonicotinoyl hydrazone (PIH) determines the efflux of iron complexes and toxicity in K562 cells, 349
Cellular uptake of a catechol iron chelator and chloroquine into *Plasmodium falciparum* infected erythrocytes, 1351

Iron transport
Iron and transition metal transport into erythrocytes mediated by nifedipine degradation products and related compounds, 1215

γ-Irradiation
Activation of deoxycytidine kinase by gamma-irradiation and inactivation by hyperosmotic shock in human lymphocytes, 2031
Ischemia
Calpain inhibitor (BSF 409425) diminishes ischemia/reperfusion-induced damage of rabbit heart mitochondria, 911
Isoprostane
Antioxidants significantly affect the formation of different classes of isoprostanes and neuroprostanes in rat cerebral synaptosomes, 611
Isoproterenol
Endothelium-dependent and -independent relaxation and VASP serines 157/239 phosphorylation by cyclic nucleotide-elevating vasodilators in rat aorta, 397
Isovelleral
Pharmacology of vanilloids at recombinant and endogenous rat vanilloid receptors, 143
JIMB01
Inhibition of microtubule polymerization by 3-bromopropionylamino benzoylurea (JIMB01), a new cancericidal tubulin ligand, 1691
JNK
Relevance of mitogen activated protein kinase (MAPK) and phosphotidylinositol-3-kinase/protein kinase B (PI3K/PKB) pathways to induction of apoptosis by curcumin in breast cells, 361
Jurkat
Pyridoxal isonicotinoyl hydrazone analogs induce apoptosis in hematopoietic cells due to their iron-chelating properties, 161

K562
Pyridoxal isonicotinoyl hydrazone analogs induce apoptosis in hematopoietic cells due to their iron-chelating properties, 161
K562 cells
Two-step formation of ^{1}H NMR visible mobile lipids during apoptosis of paclitaxel-treated K562 cells, 1271
K^+-channel openers
Toxic effects of copper-based antineoplastic drugs (Casiopeinas®) on mitochondrial functions, 1979
Kaempferol
Potent inhibitory effect of naturally occurring flavonoids quercetin and kaempferol on *in vitro* osteoclastic bone resorption, 35
Kallikrein
Down-regulation of bradykinin B_2-receptor mRNA in the heart in pressure-overload cardiac hypertrophy in the rat, 1017
K_{ATP}-channel
Inhibition of ATP-sensitive K^+-channels by a sulfonylurea analogue with a phosphate group, 599
Ketone body
Expression of acetoacetyl-CoA synthetase, a novel cytosolic ketone body-utilizing enzyme, in human brain, 989
Kinetic parameters
Kinetic analysis of fluorescein and dihydrofluorescein effluxes in tumour cells expressing the multidrug resistance protein, MRP1, 969
Kininogen
Down-regulation of bradykinin B_2-receptor mRNA in the heart in pressure-overload cardiac hypertrophy in the rat, 1017

Labile iron pool
Influence of parenteral iron preparations on non-transferrin bound iron uptake, the iron regulatory protein and the expression of ferritin and the divalent metal transporter DMT-1 in HepG2 human hepatoma cells, 1973
Lactase phlorizin hydrolase (LPH)
Absorption of quercetin-3-glucoside and quercetin-4′-glucoside in the rat small intestine: the role of lactase phlorizin hydrolase and the sodium-dependent glucose transporter, 1199
Lactose
Modulation of [^{3}H] TBOB binding to the rodent $GABA_A$ receptor by simple disaccharides, 619
Langendorff-perfused heart
Concentration dependent mitochondrial effect of amiodarone, 1115
Latent p53
Recognition of DNA modified by antitumor cisplatin by "latent" and "active" protein p53, 1305
L-Carnitine
Beneficial effects of L-carnitine in myoblastic C2C12 cells. Interaction with zidovudine, 1483
Lead identification
Small molecule antagonists of proteins, 1
Left ventricular hypertrophy
Down-regulation of bradykinin B_2-receptor mRNA in the heart in pressure-overload cardiac hypertrophy in the rat, 1017
Leptin
Inhibition of leptin release by atrial natriuretic peptide (ANP) in human adipocytes, 1883
Leucovorin
The role of multidrug resistance proteins MRP1, MRP2 and MRP3 in cellular folate homeostasis, 765
Leukemia
Enforced expression of the tumor suppressor p53 renders human leukemia cells (U937) more sensitive to 1-[β-D-arabinofuranosyl]cytosine (ara-C)-induced apoptosis, 1997
Lidamycin
Non-caspase-mediated apoptosis contributes to the potent cytotoxicity of the enediyne antibiotic lidamycin toward human tumor cells, 1767
Lidocaine
Inhibition of acetylcholine-mediated effects by borneol, 83
Ligand binding
Probing the binding of the flavonoid, quercetin to human serum albumin by circular dichroism, electronic absorption spectroscopy and molecular modelling methods, 447
Effects of D3.49A, R3.50A, and A6.34E mutations on ligand binding and activation of the cannabinoid-2 (CB2) receptor, 1077
Integrity of extracellular loop 1 of the human cannabinoid receptor 1 is critical for high-affinity binding of the ligand CP 55,940 but not SR 141716A, 1623
LIGHT
Decoy receptor 3 (DcR3) is proteolytically processed to a metabolic fragment having differential activities against Fas ligand and LIGHT, 657
β-Linked sugars
Modulation of [^{3}H] TBOB binding to the rodent $GABA_A$ receptor by simple disaccharides, 619
Lipid
Antioxidants significantly affect the formation of different classes of isoprostanes and neuroprostanes in rat cerebral synaptosomes, 611
Statin effects on cholesterol micro-domains in brain plasma membranes, 843
Lipid metabolism
Beneficial effects of L-carnitine in myoblastic C2C12 cells. Interaction with zidovudine, 1483
Lipid peroxidation
The antioxidant activity of caroverine, 59
Lipolysis
Inhibition of leptin release by atrial natriuretic peptide (ANP) in human adipocytes, 1883
Lipopeptides
Thyroxine-derivatives of lipopeptides: bifunctional dimerization inhibitors of human immunodeficiency virus-1 protease, 1097
Lipophilicity
Lipophilicity of analogs of pyridoxal isonicotinoyl hydrazone (PIH) determines the efflux of iron complexes and toxicity in K562 cells, 349
Lipopolysaccharide
Decrease of the inflammatory response and induction of the Akt/protein kinase B pathway by poly-(ADP-ribose) polymerase 1 inhibitor in endotoxin-induced septic shock, 1373

15-Lipoxygenase
Inhibition of 15-lipoxygenases by flavonoids: structure–activity relations and mode of action, 773
Liver
Ethanol consumption decreases the synthesis of the mannose 6-phosphate/insulin-like growth factor II receptor but does not decrease its messenger RNA, 637
Effects of dehydroepiandrosterone on oleic acid accumulation in rat liver, 1583
LNCaP
Evaluation of β-adrenergic receptor subtypes in the human prostate cancer cell line-LNCaP, 1489
Lovastatin
Inhibition of pancreatic stellate cell activation by the hydroxymethylglutaryl coenzyme A reductase inhibitor lovastatin, 1295
Low carbohydrate diet
Ethanol consumption decreases the synthesis of the mannose 6-phosphate/insulin-like growth factor II receptor but does not decrease its messenger RNA, 637
LPS
Suppression of tumor necrosis factor-α and inducible nitric oxide synthase gene expression by THI 52, a new synthetic naphthyl-benzylisoquinoline alkaloid, 457
LPS/IFN-γ
A novel antioxidant, octyl caffeate, suppression of LPS/IFN-γ-induced inducible nitric oxide synthase gene expression in rat aortic smooth muscle cells, 1383
L-type Ca^{2+} channel
Neuronal death signaling by β-bungarotoxin through the activation of the *N*-methyl-D-aspartate (NMDA) receptor and L-type calcium channel, 131
L-type Ca^{2+} current
Effect of arvanil (*N*-arachidonoyl-vanillyl-amine), a nonpungent anandamide–capsaicin hybrid, on ion currents in NG108-15 neuronal cells, 581
Luciferase
Evaluation of β-adrenergic receptor subtypes in the human prostate cancer cell line-LNCaP, 1489
In vivo activation of the human *CYP3A4* promoter in mouse liver and regulation by pregnane X receptors, 1889
Lucigenin
Evaluation of the probes 2′,7′-dichlorofluorescin diacetate, luminol, and lucigenin as indicators of reactive species formation, 1575
Luminol
Evaluation of the probes 2′,7′-dichlorofluorescin diacetate, luminol, and lucigenin as indicators of reactive species formation, 1575
Luteolin
Inhibition of 15-lipoxygenases by flavonoids: structure–activity relations and mode of action, 773
LV hypertrophy
Assessment of sarcoplasmic reticulum Ca^{2+}-uptake during the development of left ventricular hypertrophy, 933
Lymphocyte
Yessotoxin, a novel phycotoxin, activates phosphodiesterase activity. Effect of yessotoxin on cAMP levels in human lymphocytes, 193
Inhibition of cytokine production by the herbicide atrazine. Search for nuclear receptor targets, 303
Lymphocyte proliferation
Altered lymphocyte catecholamine reactivity in mice subjected to chronic mild stress, 15

Macrophage
Flavonoids inhibit myelin phagocytosis by macrophages: a structure–activity relationship study, 877
Heme oxygenase-1 induction and regulation in unstimulated mouse peritoneal macrophages, 905
Malaria
Cellular uptake of a catechol iron chelator and chloroquine into *Plasmodium falciparum* infected erythrocytes, 1351
Mammary artery
Adrenergic receptors in the bovine mammary artery, 1747
Mangiferin
In vitro effects of mangiferin on superoxide concentrations and expression of the inducible nitric oxide synthase, tumour necrosis factor-α and transforming growth factor-β genes, 1361
MAP kinase
Relevance of mitogen activated protein kinase (MAPK) and phosphotidylinositol-3-kinase/protein kinase B (PI3K/PKB) pathways to induction of apoptosis by curcumin in breast cells, 361
Inhibition of the MEK/ERK pathway has no effect on agonist-induced aggregation of human platelets, 1243
Role of nerve growth factor in the regulation of parotid cell differentiation induced by rat serum, 1507
MAPK
A novel antioxidant, octyl caffeate, suppression of LPS/IFN-γ-induced inducible nitric oxide synthase gene expression in rat aortic smooth muscle cells, 1383
Marijuana
Effects of D3.49A, R3.50A, and A6.34E mutations on ligand binding and activation of the cannabinoid-2 (CB2) receptor, 1077
Marine anticancer compound
Induction of apoptosis in estrogen dependent and independent breast cancer cells by the marine terpenoid dehydrothyrsiferol, 1451
Mast cell
The Cl^-/HCO_3^- exchanger slows the recovery of acute pH_i changes in rat mast cells, 389
The inhibition of mast cell activation by neutrophil lactoferrin: uptake by mast cells and interaction with tryptase, chymase and cathepsin G, 1007
Polycationic peptides as inhibitors of mast cell serine proteases, 1171
Mast cells
Endogenous nitric oxide does not modulate mesenteric mast cell degranulation in rats, 2073
Matrix metalloproteinase-1
Novel anti-inflammatory actions of nobiletin, a citrus polymethoxy flavonoid, on human synovial fibroblasts and mouse macrophages, 2065
Matrix metalloproteinase-3
Novel anti-inflammatory actions of nobiletin, a citrus polymethoxy flavonoid, on human synovial fibroblasts and mouse macrophages, 2065
MCP-1
U50,488 inhibits HIV-1 Tat-induced monocyte chemoattractant protein-1 (CCL2) production by human astrocytes, 9
MDR1
Human MDR1 polymorphism: G2677T/A and C3435T have no effect on MDR1 transport activities, 1843
Mechanism of action
β-Amyloid aggregation induced by human acetylcholinesterase: inhibition studies, 407
Melanoma
Multidrug resistance correlates with overexpression of Muc4 but inversely with P-glycoprotein and multidrug resistance related protein in transfected human melanoma cells, 1419
Melatonin receptor
Important amino acids for the function of the human MT1 melatonin receptor, 1463
Membrane
Statin effects on cholesterol micro-domains in brain plasma membranes, 843
Membrane permeability transition
Cholesteryl-hemisuccinate-induced apoptosis of promyelocytic leukemia HL-60 cells through a cyclosporin A-insensitive mechanism, 339
Membrane potential
Dual effect of ebselen on mitochondrial permeability transition, 1643
Toxic effects of copper-based antineoplastic drugs (Casiopeinas®) on mitochondrial functions, 1979

Membrane transport
Taurine transporter in primary cultured neonatal rat heart cells: a comparison between cardiac myocytes and nonmyocytes, 1181
Mesangial cells
Effects of high glucose on cytokine-induced nerve growth factor (NGF) expression in rat renal mesangial cells, 293
Messenger RNA
Ethanol consumption decreases the synthesis of the mannose 6-phosphate/insulin-like growth factor II receptor but does not decrease its messenger RNA, 637
Metabolism
Preclinical factors influencing the relative contributions of Phase I and II enzymes to the metabolism of the experimental anti-cancer drug 5,6-dimethylxanthenone-4-acetic acid, 109
Vitamin E activates gene expression via the pregnane X receptor, 269
Metabolism of quercetin-7- and quercetin-3-glucuronides by an *in vitro* hepatic model: the role of human β-glucuronidase, sulfotransferase, catechol-*O*-methyltransferase and multi-resistant protein 2 (MRP2) in flavonoid metabolism, 479
Metabolism of Vitamin D
Metabolism of 26,26,26,27,27,27-F_6-1α,25-dihydroxyvitamin D_3 by CYP24: species-based difference between humans and rats, 1957
Metamizol
Effect of metamizol on promyelocytic and terminally differentiated granulocytic cells. Comparative analysis with acetylsalicylic acid and diclofenac, 209
Metaxin
Deregulation of gene expression in fetal oocytes exposed to doxorubicin, 1701
Methionine cycle
Effect of acute betaine administration on hepatic metabolism of *S*-amino acids in rats and mice, 1565
Methotrexate
Potent inhibition of human folylpolyglutamate synthetase by a phosphinic acid mimic of the tetrahedral reaction intermediate, 315
4-Methylaminoantipyrine (MAA)
Effect of metamizol on promyelocytic and terminally differentiated granulocytic cells. Comparative analysis with acetylsalicylic acid and diclofenac, 209
Methylnaltrexone
Opioid-induced immunosuppression: is it centrally mediated or peripherally mediated?, 1761
MGDG (monogalactosyl diacylglycerol)
Effects of glycolipids from spinach on mammalian DNA polymerases, 259
MGMG (monogalactosyl monoacylglycerol)
Effects of glycolipids from spinach on mammalian DNA polymerases, 259
Midazolam
An amperometric biosensor with human CYP3A4 as a novel drug screening tool, 1817
Migration
Broad-spectrum chemokine inhibitors (BSCIs) and their anti-inflammatory effects *in vivo*, 1027
Mineralocorticoids
Receptor-mediated adrenocorticoid hormone signaling in ocular tissues, 1207
Minimally modified antisense oligonucleotides
Minimally modified phosphodiester antisense oligodeoxyribonucleotide directed against the multidrug resistance gene *mdr1*, 747
Mitochondria
Reactive oxygen species are involved in the stimulation of the mitochondrial permeability transition by dihydrolipoate, 43
Sodium tanshinone IIA sulfonate mediates electron transfer reaction in rat heart mitochondria, 51
Antioxidant and pro-oxidant properties of pyrroloquinoline quinone (PQQ): implications for its function in biological systems, 67
Apoptosis induction by the dual-action DNA- and protein-reactive antitumor drug irofulven is largely Bcl-2-independent, 503
Calpain inhibitor (BSF 409425) diminishes ischemia/reperfusion-induced damage of rabbit heart mitochondria, 911
Concentration dependent mitochondrial effect of amiodarone, 1115
Deregulation of gene expression in fetal oocytes exposed to doxorubicin, 1701
Large-conductance K^+ channel openers NS1619 and NS004 as inhibitors of mitochondrial function in glioma cells, 1827
Mitochondrial uncoupling protein 2 in the central nervous system: neuromodulator and neuroprotector, 1917
Mitochondrial ATP production
K-ATP channel independent effects of pinacidil on ATP production in isolated cardiomyocyte or pancreatic β-cell mitochondria, 1835
Mitochondrial branched-chain aminotransferase
Human mitochondrial and cytosolic branched-chain aminotransferases are cysteine *S*-conjugate β-lyases, but turnover leads to inactivation, 181
Mitochondrial dysfunction
Neuronal death signaling by β-bungarotoxin through the activation of the *N*-methyl-D-aspartate (NMDA) receptor and L-type calcium channel, 131
Mitochondrial K-ATP channels
K-ATP channel independent effects of pinacidil on ATP production in isolated cardiomyocyte or pancreatic β-cell mitochondria, 1835
Mitochondrial membrane permeability
Dual effect of ebselen on mitochondrial permeability transition, 1643
Mobile lipids
Two-step formation of ^1H NMR visible mobile lipids during apoptosis of paclitaxel-treated K562 cells, 1271
Mobilization of iron from cells
Lipophilicity of analogs of pyridoxal isonicotinoyl hydrazone (PIH) determines the efflux of iron complexes and toxicity in K562 cells, 349
Molecular orbital calculations
Monoamine oxidase A inhibitory potency and flavin perturbation are influenced by different aspects of pirlindole inhibitor structure, 1867
Monkey brain
Effects of zinc ion on type A monoamine oxidase in monkey brain mitochondria, 625
Monoamine oxidase
Inflammation and inducible nitric oxide synthase have no effect on monoamine oxidase activity in glioma cells, 1719
Monoamine oxidase A inhibitory potency and flavin perturbation are influenced by different aspects of pirlindole inhibitor structure, 1867
Monocytes
Suppression of human monocyte interleukin-1β production by ajulemic acid, a nonpsychoactive cannabinoid, 649
Morphine
Opioid-induced immunosuppression: is it centrally mediated or peripherally mediated?, 1761
Morphine glucuronidation
Cloning and characterisation of the first drug-metabolising canine UDP-glucuronosyltransferase of the 2B subfamily, 1251
Mouse air pouch
Inhibition of the NF-κB signaling pathway mediates the anti-inflammatory effects of petrosaspongiolide M, 887
Mouse peritoneal macrophages
Inhibition of the NF-κB signaling pathway mediates the anti-inflammatory effects of petrosaspongiolide M, 887
LAAE-14, a new *in vitro* inhibitor of intracellular calcium mobilization, modulates acute and chronic inflammation, 1539
MRI
Decrease of the inflammatory response and induction of the Akt/protein kinase B pathway by poly-(ADP-ribose) polymerase 1 inhibitor in endotoxin-induced septic shock, 1373
mRNA
Effect of genotype on steady-state *CYP1A1* gene expression in human peripheral lymphocytes, 441
Melatonin differentially modulates the expression and function of the hMT_1 and hMT_2 melatonin receptors upon prolonged withdrawal, 731

mRNA expression
Sarin (nerve agent GB)-induced differential expression of mRNA coding for the acetylcholinesterase gene in the rat central nervous system, 2041
mRNA levels
In vitro effects of mangiferin on superoxide concentrations and expression of the inducible nitric oxide synthase, tumour necrosis factor-α and transforming growth factor-β genes, 1361
mRNA stability
Interplay between transcriptional and post-transcriptional regulation of *Cyp2a5* expression, 1653
MRP
The role of multidrug resistance proteins MRP1, MRP2 and MRP3 in cellular folate homeostasis, 765
MRP1
Kinetic analysis of fluorescein and dihydrofluorescein effluxes in tumour cells expressing the multidrug resistance protein, MRP1, 969
Multidrug resistance correlates with overexpression of Muc4 but inversely with P-glycoprotein and multidrug resistance related protein in transfected human melanoma cells, 1419
MT_1 melatonin receptors
Melatonin differentially modulates the expression and function of the hMT_1 and hMT_2 melatonin receptors upon prolonged withdrawal, 731
Muc4
Multidrug resistance correlates with overexpression of Muc4 but inversely with P-glycoprotein and multidrug resistance related protein in transfected human melanoma cells, 1419
Multidrug resistance (MDR)
Reversal of P-glycoprotein-mediated multidrug resistance by ginsenoside Rg_3, 75
Minimally modified phosphodiester antisense oligodeoxyribonucleotide directed against the multidrug resistance gene *mdr1*, 747
The role of multidrug resistance proteins MRP1, MRP2 and MRP3 in cellular folate homeostasis, 765
Kinetic analysis of fluorescein and dihydrofluorescein effluxes in tumour cells expressing the multidrug resistance protein, MRP1, 969
Multidrug resistance correlates with overexpression of Muc4 but inversely with P-glycoprotein and multidrug resistance related protein in transfected human melanoma cells, 1419
Multidrug-resistance
Structure activity analysis of the pro-apoptotic, antitumor effect of nitrostyrene adducts and related compounds, 603
Multiple sclerosis
Flavonoids inhibit myelin phagocytosis by macrophages; a structure–activity relationship study, 877
Multi-targeted antifolate
Decreased expression of the reduced folate carrier and folypolyglutamate synthetase is the basis for acquired resistance to the pemetrexed antifolate (LY231514) in an L1210 murine leukemia cell line, 1163
Multivalent saccharides
"Multivalent" saccharides: development of new approaches for inhibiting the effects of glycosphingolipid-binding pathogens, 699
Murine CB_2 receptor
Expression of the murine CB_2 cannabinoid receptor using a recombinant Semliki Forest virus, 1931
Muscarinic receptor
Cooperative enhancement of insulinotropic action of GLP-1 by acetylcholine uncovers paradoxical inhibitory effect of beta cell muscarinic receptor activation on adenylate cyclase activity, 283
Muscarinic receptors
Comparison of the pharmacological antagonism of M_2 and M_3 muscarinic receptors expressed in isolation and in combination, 1227
Myc
Effect of 20-*epi*-1α,25-dihydroxyvitamin D_3 on the proliferation of human neuroblastoma: role of cell cycle regulators and the Myc–Id2 pathway, 1943
Myocytes
Taurine transporter in primary cultured neonatal rat heart cells: a comparison between cardiac myocytes and nonmyocytes, 1181

NAD(P)H:quinone oxidoreductase 1
Oxathiolene oxides: a novel family of compounds that induce ferritin, glutathione *S*-transferase, and other proteins of the phase II response, 1261
NADPH-cytochrome P450 oxidoreductase
Opposing mechanisms of NADPH-cytochrome P450 oxidoreductase regulation by peroxisome proliferators, 949
Naloxone
Opioid-induced immunosuppression: is it centrally mediated or peripherally mediated?, 1761
Naltrexone
Opioid-induced immunosuppression: is it centrally mediated or peripherally mediated?, 1761
Nasopharyngeal carcinoma
Apoptosis and TRAF-1 cleavage in Epstein-Barr virus-positive nasopharyngeal carcinoma cells treated with doxorubicin combined with a farnesyl-transferase inhibitor, 423
Necrosis
Evaluation of oxidative stress during apoptosis and necrosis caused by D-galactosamine in rat liver, 101
Nephrotoxicity
Modulatory effects of hormones, drugs, and toxic events on renal organic anion transport, 1393
Nerve growth factor
Role of nerve growth factor in the regulation of parotid cell differentiation induced by rat serum, 1507
Neuroblastoma
Effect of 20-*epi*-1α,25-dihydroxyvitamin D_3 on the proliferation of human neuroblastoma: role of cell cycle regulators and the Myc–Id2 pathway, 1943
Neurodegeneration
Mitochondrial uncoupling protein 2 in the central nervous system: neuromodulator and neuroprotector, 1917
Neurons
Mitochondrial uncoupling protein 2 in the central nervous system: neuromodulator and neuroprotector, 1917
Neuroprostane
Antioxidants significantly affect the formation of different classes of isoprostanes and neuroprostanes in rat cerebral synaptosomes, 611
Neurotoxicity
Neuronal death signaling by β-bungarotoxin through the activation of the *N*-methyl-D-aspartate (NMDA) receptor and L-type calcium channel, 131
Neurotransmission
Mitochondrial uncoupling protein 2 in the central nervous system: neuromodulator and neuroprotector, 1917
Neurotrophins
Effects of high glucose on cytokine-induced nerve growth factor (NGF) expression in rat renal mesangial cells, 293
Neutrophil
The inhibition of mast cell activation by neutrophil lactoferrin: uptake by mast cells and interaction with tryptase, chymase and cathepsin G, 1007
Neutrophil granulocytes
The effect of sesquiterpene lactones on the release of human neutrophil elastase, 897
Neutrophils
Evaluation of the probes 2′,7′-dichlorofluorescin diacetate, luminol, and lucigenin as indicators of reactive species formation, 1575
Characterization of maleimide-activated Ca^{2+} entry in neutrophils, 1923
NFAT
Effect of sesquiterpene lactones on the expression of the activation marker CD69 and of IL-2 in T-lymphocytes in whole blood, 1551

NF-κB
Suppression of tumor necrosis factor-α and inducible nitric oxide synthase gene expression by THI 52, a new synthetic naphthyl-benzylisoquinoline alkaloid, 457
Inhibition of the NF-κB signaling pathway mediates the anti-inflammatory effects of petrosaspongiolide M, 887
Effect of sesquiterpene lactones on the expression of the activation marker CD69 and of IL-2 in T-lymphocytes in whole blood, 1551
Mechanisms involved in exogenous C2- and C6-ceramide-induced cancer cell toxicity, 1633
NG108-15 cells
Effect of arvanil (*N*-arachidonoyl-vanillyl-amine), a nonpungent anandamide–capsaicin hybrid, on ion currents in NG108-15 neuronal cells, 581
Nicotinic acetylcholine receptor
Inhibition of acetylcholine-mediated effects by borneol, 83
NIH 3T3
Activation of the coactivator four-and-a-half-LIM-only protein FHL2 and the c-*fos* promoter through inhibition of protein phosphatase 2A, 1317
Nitric oxide
Suppression of tumor necrosis factor-α and inducible nitric oxide synthase gene expression by THI 52, a new synthetic naphthyl-benzylisoquinoline alkaloid, 457
Diminished production of nitric oxide synthase cofactor tetrahydrobiopterin by rosiglitazone in adipocytes, 593
Indomethacin-induced free radical-mediated changes in the intestinal brush border membranes, 683
Involvement of nitric oxide/cyclic GMP signaling pathway in the regulation of fatty acid metabolism in rat hepatocytes, 807
Heme oxygenase-1 induction and regulation in unstimulated mouse peritoneal macrophages, 905
Effects of angiotensin II on vascular endothelial cells: formation of receptor-mediated reactive nitrogen species, 1189
In vitro effects of mangiferin on superoxide concentrations and expression of the inducible nitric oxide synthase, tumour necrosis factor-α and transforming growth factor-β genes, 1361
Inflammation and inducible nitric oxide synthase have no effect on monoamine oxidase activity in glioma cells, 1719
Endogenous nitric oxide does not modulate mesenteric mast cell degranulation in rats, 2073
Nitric oxide synthase
Heme oxygenase-1 induction and regulation in unstimulated mouse peritoneal macrophages, 905
Nitroglycerin
Interactions of peroxynitrite and other nitrating substances with human platelets: the role of glutathione and peroxynitrite permeability, 515
Nitroheterocycles
Trypanosoma cruzi: effect and mode of action of nitroimidazole and nitrofuran derivatives, 999
Nitrosophenylpyridine derivative of nifedipine
Iron and transition metal transport into erythrocytes mediated by nifedipine degradation products and related compounds, 1215
Nitrostyrene derivatives
Structure activity analysis of the pro-apoptotic, antitumor effect of nitrostyrene adducts and related compounds, 603
3-Nitrotyrosine
Effects of angiotensin II on vascular endothelial cells: formation of receptor-mediated reactive nitrogen species, 1189
NMDA receptor
Neuronal death signaling by β-bungarotoxin through the activation of the *N*-methyl-D-aspartate (NMDA) receptor and L-type calcium channel, 131
Nobiletin
Novel anti-inflammatory actions of nobiletin, a citrus polymethoxy flavonoid, on human synovial fibroblasts and mouse macrophages, 2065
Nonpeptide antagonist
Peptide and nonpeptide antagonist interaction with constitutively active human AT_1 receptors, 1329
Nonselective cation channel
Molecular mechanisms for the activation of Ca^{2+}-permeable nonselective cation channels by endothelin-1 in C6 glioma cells, 1435
Nonsteroidal anti-inflammatory drugs
Indomethacin-induced free radical-mediated changes in the intestinal brush border membranes, 683
Non-steroidal anti-inflammatory drugs (NSAIDs)
Effect of metamizol on promyelocytic and terminally differentiated granulocytic cells. Comparative analysis with acetylsalicylic acid and diclofenac, 209
Non-transferrin bound iron
Influence of parenteral iron preparations on non-transferrin bound iron uptake, the iron regulatory protein and the expression of ferritin and the divalent metal transporter DMT-1 in HepG2 human hepatoma cells, 1973
Norepinephrine transporter
Inhibition of the norepinephrine transporter function in cultured bovine adrenal medullary cells by bisphenol A, 2049
Norepinephrine uptake
Inhibition of the norepinephrine transporter function in cultured bovine adrenal medullary cells by bisphenol A, 2049
Northern analysis
Expression profiles of three isoforms of inositol 1,4,5-trisphosphate receptor in brown adipose tissue of the rat, 995
NQO1
Cytotoxicity and apoptosis of benzoquinones: redox cycling, cytochrome *c* release, and BAD protein expression, 1061
NSAIDs
Advances in the pathophysiology of constitutive and inducible cyclooxygenases: two enzymes in the spotlight, 153
Nuclear magnetic resonance spectroscopy
Two-step formation of ^{1}H NMR visible mobile lipids during apoptosis of paclitaxel-treated K562 cells, 1271
Nucleosides
N^6-Substituted adenosine derivatives: selectivity, efficacy, and species differences at A_3 adenosine receptors, 1675
Nucleoside-5′-thiosulphates
Selective activation of deoxycytidine kinase by thymidine-5′-thiosulphate and release by deoxycytidine in human lymphocytes, 563
Nucleotide analog
Cellular transformation of the investigational new anticancer drug NB1011, a phosphoramidate of 5-(2-bromovinyl)-2′-deoxyuridine, results in modification of cellular proteins not DNA, 823
Nucleotide metabolism
Activation of deoxycytidine kinase by gamma-irradiation and inactivation by hyperosmotic shock in human lymphocytes, 2031
Nucleotide receptor
Tumor necrosis factor α-induced apoptosis in astrocytes is prevented by the activation of $P2Y_6$, but not $P2Y_4$ nucleotide receptors, 923
Nystatin technique
Regulation of mastoparan-induced increase of paracellular permeability in T84 cells by RhoA and basolateral potassium channels, 1151

O_2 uptake
Toxic effects of copper-based antineoplastic drugs (Casiopeinas®) on mitochondrial functions, 1979
Obesity
Intracellular signal transduction modulating expression of plasminogen activator inhibitor-1 in adipocytes, 1907
Octyl caffeate
A novel antioxidant, octyl caffeate, suppression of LPS/IFN-γ-induced inducible nitric oxide synthase gene expression in rat aortic smooth muscle cells, 1383
Oleic acid
Effects of dehydroepiandrosterone on oleic acid accumulation in rat liver, 1583

Olvanil
Pharmacology of vanilloids at recombinant and endogenous rat vanilloid receptors, 143
Opioid
Opioid-induced immunosuppression: is it centrally mediated or peripherally mediated?, 1761
κ-Opioid receptor
U50,488 inhibits HIV-1 Tat-induced monocyte chemoattractant protein-1 (CCL2) production by human astrocytes, 9
Osteoarthritis
Effects of rhein on human articular chondrocytes in alginate beads, 377
Osteoblasts
Daidzein enhances osteoblast growth that may be mediated by increased bone morphogenetic protein (BMP) production, 709
Osteoclasts
Potent inhibitory effect of naturally occurring flavonoids quercetin and kaempferol on *in vitro* osteoclastic bone resorption, 35
Osthole
Osthole prevents anti-Fas antibody-induced hepatitis in mice by affecting the caspase-3-mediated apoptotic pathway, 677
Oxidation
Antioxidants significantly affect the formation of different classes of isoprostanes and neuroprostanes in rat cerebral synaptosomes, 611
Dual effect of ebselen on mitochondrial permeability transition, 1643
Oxidation–reduction
Activation of p53 by the cytoprotective aminothiol WR1065: DNA-damage-independent pathway and redox-dependent modulation of p53 DNA-binding activity, 1129
Oxidative stress
Indomethacin-induced free radical-mediated changes in the intestinal brush border membranes, 683
Rabbit chronic ileitis leads to up-regulation of adenosine *A1/A3* gene products, oxidative stress, and immune modulation, 1529
LAAE-14, a new *in vitro* inhibitor of intracellular calcium mobilization, modulates acute and chronic inflammation, 1539
2-Oxoglutarate dehydrogenase
Toxic effects of copper-based antineoplastic drugs (Casiopeinas^{II}) on mitochondrial functions, 1979
Oxyntic mucosa
TNF-α induces apoptosis of parietal cells, 1755

p23
p23 enhances the formation of the aryl hydrocarbon receptor–DNA complex, 941
p53
Activation of p53 by the cytoprotective aminothiol WR1065: DNA-damage-independent pathway and redox-dependent modulation of p53 DNA-binding activity, 1129
Induction of G1 phase arrest in MCF human breast cancer cells by pentagalloylglucose through the down-regulation of CDK4 and CDK2 activities and up-regulation of the CDK inhibitors $p27^{Kip}$ and $p21^{Cip}$, 1777
Enforced expression of the tumor suppressor p53 renders human leukemia cells (U937) more sensitive to 1-[β-D-arabinofuranosyl]cytosine (ara-C)-induced apoptosis, 1997
P388 leukaemia
Apoptotic cell death induction by F 11782 a novel dual catalytic inhibitor of topoisomerases I and II, 755
^{31}P NMR
Concentration dependent mitochondrial effect of amiodarone, 1115
Paclitaxel
Two-step formation of ^{1}H NMR visible mobile lipids during apoptosis of paclitaxel-treated K562 cells, 1271
PAF
The effect of sesquiterpene lactones on the release of human neutrophil elastase, 897
Panax ginseng
Reversal of P-glycoprotein-mediated multidrug resistance by ginsenoside Rg_3, 75
Pancreatic β-cell
Inhibition of ATP-sensitive K^+-channels by a sulfonylurea analogue with a phosphate group, 599
Pancreatic stellate cells
Inhibition of pancreatic stellate cell activation by the hydroxymethylglutaryl coenzyme A reductase inhibitor lovastatin, 1295
PAPS synthetase (PAPSS)
Pharmacogenetics of human 3′-phosphoadenosine 5′-phosphosulfate synthetase 1 (PAPSS1): gene resequencing, sequence variation, and functional genomics, 1787
Paracellular
Regulation of mastoparan-induced increase of paracellular permeability in T84 cells by RhoA and basolateral potassium channels, 1151
Parenteral iron
Influence of parenteral iron preparations on non-transferrin bound iron uptake, the iron regulatory protein and the expression of ferritin and the divalent metal transporter DMT-1 in HepG2 human hepatoma cells, 1973
Parkinson's disease
Inflammation and inducible nitric oxide synthase have no effect on monoamine oxidase activity in glioma cells, 1719
Parotid acinar cells
Role of nerve growth factor in the regulation of parotid cell differentiation induced by rat serum, 1507
Patch-clamp
The voltage- and time-dependent blocking effect of trifluoperazine on T lymphocyte Kv1.3 channels, 551
PBR gene promoter
Transcriptional suppression of the adrenal cortical peripheral-type benzodiazepine receptor gene and inhibition of steroid synthesis by ginkgolide B, 717
$p34^{CDC2}$
Resveratrol-induced G_2 arrest through the inhibition of CDK7 and $p34^{CDC2}$ kinases in colon carcinoma HT29 cells, 1053
$p21^{Cip}$
Induction of G1 phase arrest in MCF human breast cancer cells by pentagalloylglucose through the down-regulation of CDK4 and CDK2 activities and up-regulation of the CDK inhibitors $p27^{Kip}$ and $p21^{Cip}$, 1777
$p21^{Cip1}$
Effect of 20-*epi*-1α,25-dihydroxyvitamin D_3 on the proliferation of human neuroblastoma: role of cell cycle regulators and the Myc–Id2 pathway, 1943
Pemetrexed
Decreased expression of the reduced folate carrier and folypolyglutamate synthetase is the basis for acquired resistance to the pemetrexed antifolate (LY231514) in an L1210 murine leukemia cell line, 1163
Peptide
Peptide G protein agonists from a phage display library, 961
Peptide hormone
Established theory of radiation-induced decay is not generalizable to Bolton–Hunter labeled peptides, 1515
Peripherally mediated
Opioid-induced immunosuppression: is it centrally mediated or peripherally mediated?, 1761
Peripheral-type benzodiazepine receptor (PBR)
Transcriptional suppression of the adrenal cortical peripheral-type benzodiazepine receptor gene and inhibition of steroid synthesis by ginkgolide B, 717
Peritoneal macrophages
In vitro effects of mangiferin on superoxide concentrations and expression of the inducible nitric oxide synthase, tumour necrosis factor-α and transforming growth factor-β genes, 1361
Permeability
Regulation of mastoparan-induced increase of paracellular permeability in T84 cells by RhoA and basolateral potassium channels, 1151

Permeability transition
Reactive oxygen species are involved in the stimulation of the mitochondrial permeability transition by dihydrolipoate, 43
Concentration dependent mitochondrial effect of amiodarone, 1115
Peroxidative metabolism
Evidence of covalent binding of the dietary flavonoid quercetin to DNA and protein in human intestinal and hepatic cells, 1603
Peroxisome proliferator-activated receptor γ
Differential effects of YM440 a hypoglycemic agent on binding to a peroxisome proliferator-activated receptor γ and its transactivation, 795
Peroxisome proliferator-activated receptor α
Opposing mechanisms of NADPH-cytochrome P450 oxidoreductase regulation by peroxisome proliferators, 949
Peroxisome proliferators
Opposing mechanisms of NADPH-cytochrome P450 oxidoreductase regulation by peroxisome proliferators, 949
Peroxynitrite
Interactions of peroxynitrite and other nitrating substances with human platelets: the role of glutathione and peroxynitrite permeability, 515
Effects of angiotensin II on vascular endothelial cells: formation of receptor-mediated reactive nitrogen species, 1189
Pertussis toxin
Comparison of the pharmacological antagonism of M_2 and M_3 muscarinic receptors expressed in isolation and in combination, 1227
Petrosaspongiolide M
Inhibition of the NF-κB signaling pathway mediates the anti-inflammatory effects of petrosaspongiolide M, 887
P-glycoprotein (Pgp)
Reversal of P-glycoprotein-mediated multidrug resistance by ginsenoside Rg_3, 75
Human MDR1 polymorphism: G2677T/A and C3435T have no effect on MDR1 transport activities, 1843
P-gp
Multidrug resistance correlates with overexpression of Muc4 but inversely with P-glycoprotein and multidrug resistance related protein in transfected human melanoma cells, 1419
Phage-display library
Peptide G protein agonists from a phage display library, 961
Pharmacogenetics
Pharmacogenetics of human 3′-phosphoadenosine 5′-phosphosulfate synthetase 1 (PAPSS1): gene resequencing, sequence variation, and functional genomics, 1787
Phenothiazines
The voltage- and time-dependent blocking effect of trifluoperazine on T lymphocyte Kv1.3 channels, 551
pHi tyrosine kinase
Dimethylsphingosine increases cytosolic calcium and intracellular pH in human T lymphocytes, 465
Phorbol ester
Inhibition of the MEK/ERK pathway has no effect on agonist-induced aggregation of human platelets, 1243
Phorbol 12-myristate 13-acetate
Resistance to phorbol 12-myristate 13-acetate-induced cell growth arrest in an HL60 cell line chronically exposed to a glutathione *S*-transferase π inhibitor, 1611
Phosphapeptide inhibitor
Potent inhibition of human folylpolyglutamate synthetase by a phosphinic acid mimic of the tetrahedral reaction intermediate, 315
Phosphatase inhibitors
Structure activity analysis of the pro-apoptotic, antitumor effect of nitrostyrene adducts and related compounds, 603
Phosphatidic acid
Modification of intracellular free calcium in cultured A10 vascular smooth muscle cells by exogenous phosphatidic acid, 2091
Phosphatidylinositol 3-kinase
Development of insulin resistance and reversal by thiazolidinediones in C2C12 skeletal muscle cells, 249
Phosphinate
Potent inhibition of human folylpolyglutamate synthetase by a phosphinic acid mimic of the tetrahedral reaction intermediate, 315
3′-Phosphoadenosine 5′-phosphosulfate (PAPS)
Pharmacogenetics of human 3′-phosphoadenosine 5′-phosphosulfate synthetase 1 (PAPSS1): gene resequencing, sequence variation, and functional genomics, 1787
Phosphodiesterase
Yessotoxin, a novel phycotoxin, activates phosphodiesterase activity. Effect of yessotoxin on cAMP levels in human lymphocytes, 193
Phosphoinositide hydrolysis
Comparison of the pharmacological antagonism of M_2 and M_3 muscarinic receptors expressed in isolation and in combination, 1227
Phospholipase C
Tumor necrosis factor α-induced apoptosis in astrocytes is prevented by the activation of $P2Y_6$, but not $P2Y_4$ nucleotide receptors, 923
Phospholipase D
Investigation of the cellular mechanism of inhibition of formyl-methionyl-leucyl-phenylalanine-induced superoxide anion generation in rat neutrophils by 2-benzyloxybenzaldehyde, 1043
Phosphotyrosine content
Effect of *in vivo* administered hexachlorobenzene on epidermal growth factor receptor levels, protein tyrosine kinase activity, and phosphotyrosine content in rat liver, 1495
PIH analogs
Lipophilicity of analogs of pyridoxal isonicotinoyl hydrazone (PIH) determines the efflux of iron complexes and toxicity in K562 cells, 349
Pinacidil
K-ATP channel independent effects of pinacidil on ATP production in isolated cardiomyocyte or pancreatic β-cell mitochondria, 1835
$p27^{Kip}$
Induction of G1 phase arrest in MCF human breast cancer cells by pentagalloylglucose through the down-regulation of CDK4 and CDK2 activities and up-regulation of the CDK inhibitors $p27^{Kip}$ and $p21^{Cip}$, 1777
Plasma stability
Plasma stability of two glycosyl indolocarbazole antitumor agents, 25
Platelets
Interactions of peroxynitrite and other nitrating substances with human platelets: the role of glutathione and peroxynitrite permeability, 515
Inhibition of the MEK/ERK pathway has no effect on agonist-induced aggregation of human platelets, 1243
Pokeweed antiviral protein
High resolution X-ray structure of potent anti-HIV pokeweed antiviral protein-III, 1709
Poly-(ADP-ribose) polymerase
Decrease of the inflammatory response and induction of the Akt/protein kinase B pathway by poly-(ADP-ribose) polymerase 1 inhibitor in endotoxin-induced septic shock, 1373
Polyamines
Activation of p53 by the cytoprotective aminothiol WR1065: DNA-damage-independent pathway and redox-dependent modulation of p53 DNA-binding activity, 1129
Polycations
Polycationic peptides as inhibitors of mast cell serine proteases, 1171
Polyglutamylation
The role of multidrug resistance proteins MRP1, MRP2 and MRP3 in cellular folate homeostasis, 765
Polymethoxy flavonoid
Novel anti-inflammatory actions of nobiletin, a citrus polymethoxy flavonoid, on human synovial fibroblasts and mouse macrophages, 2065
Polymorphism
Effect of genotype on steady-state *CYP1A1* gene expression in human peripheral lymphocytes, 441
Human MDR1 polymorphism: G2677T/A and C3435T have no effect on MDR1 transport activities, 1843

Polyphenol
Fast repair of deoxythymidine radical anions by two polyphenols: rutin and quercetin, 1967
Porphyria cutanea tarda
Uroporphyrin accumulation in hepatoma cells expressing human or mouse CYP1A2: relation to the role of CYP1A2 in human porphyria cutanea tarda, 545
Posttranscriptional regulation
Opposing mechanisms of NADPH-cytochrome P450 oxidoreductase regulation by peroxisome proliferators, 949
Potassium channel
The voltage- and time-dependent blocking effect of trifluoperazine on T lymphocyte Kv1.3 channels, 551
Potassium channel openers
Large-conductance K^+ channel openers NS1619 and NS004 as inhibitors of mitochondrial function in glioma cells, 1827
Potassium conductance
Regulation of mastoparan-induced increase of paracellular permeability in T84 cells by RhoA and basolateral potassium channels, 1151
PPAHV
Pharmacology of vanilloids at recombinant and endogenous rat vanilloid receptors, 143
PPAR
Inhibition of cytokine production by the herbicide atrazine. Search for nuclear receptor targets, 303
pRB
Effect of 20-*epi*-1α,25-dihydroxyvitamin D_3 on the proliferation of human neuroblastoma: role of cell cycle regulators and the Myc–Id2 pathway, 1943
Pregnane X receptor
Vitamin E activates gene expression via the pregnane X receptor, 269
In vivo activation of the human *CYP3A4* promoter in mouse liver and regulation by pregnane X receptors, 1889
Prodrug
Cytosolic β-glycosidases for activation of glycoside prodrugs of daunorubicin, 1875
Proinflammatory cytokine
Novel anti-inflammatory actions of nobiletin, a citrus polymethoxy flavonoid, on human synovial fibroblasts and mouse macrophages, 2065
Proliferation
Esculetin inhibits Ras-mediated cell proliferation and attenuates vascular restenosis following angioplasty in rats, 1897
Pro-oxidant
Antioxidant and pro-oxidant properties of pyrroloquinoline quinone (PQQ): implications for its function in biological systems, 67
Prostacyclin
Regulation of cyclooxygenase-2 expression by iloprost in human vascular smooth muscle cells. Role of transcription factors CREB and ICER, 979
Long-term-desensitization of prostacyclin receptors is independent of the C-terminal tail, 1991
Prostaglandins
Advances in the pathophysiology of constitutive and inducible cyclooxygenases: two enzymes in the spotlight, 153
Prostate carcinoma
Cellular bases of the antitumor activity of a 7-substituted camptothecin in hormone-refractory human prostate carcinoma models, 1281
Protein damage
Apoptosis induction by the dual-action DNA- and protein-reactive antitumor drug irofulven is largely Bcl-2-independent, 503
Protein factors
p23 enhances the formation of the aryl hydrocarbon receptor–DNA complex, 941
Protein glutathiolation
Protein glutathiolation in human blood, 741
Protein kinase
Endothelium-dependent and -independent relaxation and VASP serines 157/239 phosphorylation by cyclic nucleotide-elevating vasodilators in rat aorta, 397
Modulatory effects of hormones, drugs, and toxic events on renal organic anion transport, 1393
Protein modification
Cellular transformation of the investigational new anticancer drug NB1011, a phosphoramidate of 5-(2-bromovinyl)-2′-deoxyuridine, results in modification of cellular proteins not DNA, 823
Protein p53
Influence of p53 and $p21^{WAF1}$ expression on sensitivity of cancer cells to cladribine, 121
Protein thiolation
Protein glutathiolation in human blood, 741
Protein tyrosine kinase
Effect of *in vivo* administered hexachlorobenzene on epidermal growth factor receptor levels, protein tyrosine kinase activity, and phosphotyrosine content in rat liver, 1495
Protein–DNA interactions
Recognition of DNA modified by antitumor cisplatin by "latent" and "active" protein p53, 1305
Protein–protein interactions
Small molecule antagonists of proteins, 1
Proteomics
Toxicogenomics of bromobenzene hepatotoxicity: a combined transcriptomics and proteomics approach, 857
Pulse radiolysis
Fast repair of deoxythymidine radical anions by two polyphenols: rutin and quercetin, 1967
Purines
N^6-Substituted adenosine derivatives: selectivity, efficacy, and species differences at A_3 adenosine receptors, 1675
Pyridine nucleotides
Reactive oxygen species are involved in the stimulation of the mitochondrial permeability transition by dihydrolipoate, 43
Pyridoxal isonicotinoyl hydrazone (PIH)
Pyridoxal isonicotinoyl hydrazone analogs induce apoptosis in hematopoietic cells due to their iron-chelating properties, 161
Lipophilicity of analogs of pyridoxal isonicotinoyl hydrazone (PIH) determines the efflux of iron complexes and toxicity in K562 cells, 349
Pyrimidines
Tumor necrosis factor α-induced apoptosis in astrocytes is prevented by the activation of $P2Y_6$, but not $P2Y_4$ nucleotide receptors, 923
Pyrroloquinoline quinone (PQQ)
Antioxidant and pro-oxidant properties of pyrroloquinoline quinone (PQQ): implications for its function in biological systems, 67

Quantitative real-time PCR
Quantitative analysis of the Ah receptor/cytochrome P450 CYP1B1/CYP1A1 signalling pathway, 1663
Quercetin
Potent inhibitory effect of naturally occurring flavonoids quercetin and kaempferol on *in vitro* osteoclastic bone resorption, 35
Probing the binding of the flavonoid, quercetin to human serum albumin by circular dichroism, electronic absorption spectroscopy and molecular modelling methods, 447
Inhibition of 15-lipoxygenases by flavonoids: structure–activity relations and mode of action, 773
Evidence of covalent binding of the dietary flavonoid quercetin to DNA and protein in human intestinal and hepatic cells, 1603
Quercetin glucoside
Absorption of quercetin-3-glucoside and quercetin-4′-glucoside in the rat small intestine: the role of lactase phlorizin hydrolase and the sodium-dependent glucose transporter, 1199

Rabbit
Calpain inhibitor (BSF 409425) diminishes ischemia/reperfusion-induced damage of rabbit heart mitochondria, 911
Rabbit ileitis
Rabbit chronic ileitis leads to up-regulation of adenosine *A1/A3* gene products, oxidative stress, and immune modulation, 1529
Radioactive decay
Established theory of radiation-induced decay is not generalizable to Bolton–Hunter labeled peptides, 1515
Radioligand
Established theory of radiation-induced decay is not generalizable to Bolton–Hunter labeled peptides, 1515
Radioligand binding
Affinity of cyamemazine, an anxiolytic antipsychotic drug, for human recombinant dopamine vs. serotonin receptor subtypes, 435
Pharmacological characterisation of a cell line expressing $GABA_{B1b}$ and $GABA_{B2}$ receptor subunits, 1103
Ras
Inhibition of pancreatic stellate cell activation by the hydroxymethylglutaryl coenzyme A reductase inhibitor lovastatin, 1295
Esculetin inhibits Ras-mediated cell proliferation and attenuates vascular restenosis following angioplasty in rats, 1897
Rat
In vitro effects of mangiferin on superoxide concentrations and expression of the inducible nitric oxide synthase, tumour necrosis factor-α and transforming growth factor-β genes, 1361
Rat brain
Effects of zinc ion on type A monoamine oxidase in monkey brain mitochondria, 625
Rat cerebral receptors
Affinity of cyamemazine, an anxiolytic antipsychotic drug, for human recombinant dopamine vs. serotonin receptor subtypes, 435
Rat liver
Effect of *in vivo* administered hexachlorobenzene on epidermal growth factor receptor levels, protein tyrosine kinase activity, and phosphotyrosine content in rat liver, 1495
Rat neutrophil
Investigation of the cellular mechanism of inhibition of formyl-methionyl-leucyl-phenylalanine-induced superoxide anion generation in rat neutrophils by 2-benzyloxybenzaldehyde, 1043
Rat UGT2B1
Cloning and characterisation of the first drug-metabolising canine UDP-glucuronosyltransferase of the 2B subfamily, 1251
Rat vascular smooth muscle cell
Interaction of dimercaptosuccinic acid (DMSA) with angiotensin II on calcium mobilization in vascular smooth muscle cells, 1741
Reactive nitrogen species
Effects of angiotensin II on vascular endothelial cells: formation of receptor-mediated reactive nitrogen species, 1189
Reactive oxygen species
Flavonoids inhibit myelin phagocytosis by macrophages; a structure–activity relationship study, 877
Rebeccamycin
Plasma stability of two glycosyl indolocarbazole antitumor agents, 25
Receptor
Anthrax toxin receptor proteins, 309
Receptor-mediated adrenocorticoid hormone signaling in ocular tissues, 1207
Novel selective and metabolically stable inhibitors of anandamide cellular uptake, 1473
Established theory of radiation-induced decay is not generalizable to Bolton–Hunter labeled peptides, 1515
Receptor binding
Differential allosteric modulation by amiloride analogues of agonist and antagonist binding at A_1 and A_3 adenosine receptors, 525
Differential effects of YM440 a hypoglycemic agent on binding to a peroxisome proliferator-activated receptor γ and its transactivation, 795
N^6-Substituted adenosine derivatives: selectivity, efficacy, and species differences at A_3 adenosine receptors, 1675
Receptor desensitization
Long-term-desensitization of prostacyclin receptors is independent of the C-terminal tail, 1991
Receptor ELISA
Important amino acids for the function of the human MT1 melatonin receptor, 1463
Reporter gene assay
Evaluation of β-adrenergic receptor subtypes in the human prostate cancer cell line-LNCaP, 1489
Receptor-mediated endocytosis
Impaired receptor-mediated endocytosis by the asialoglycoprotein receptor in ethanol-fed mice: implications for studying the role of this receptor in alcoholic apoptosis, 535
Recombinant enzyme
Enzymatic characterization of recombinant mouse retinal dehydrogenase type 1, 1685
Recombinant human receptors
Affinity of cyamemazine, an anxiolytic antipsychotic drug, for human recombinant dopamine vs. serotonin receptor subtypes, 435
Redox cycling
Antioxidant and pro-oxidant properties of pyrroloquinoline quinone (PQQ): implications for its function in biological systems, 67
Trypanosoma cruzi: effect and mode of action of nitroimidazole and nitrofuran derivatives, 999
Cytotoxicity and apoptosis of benzoquinones: redox cycling, cytochrome *c* release, and BAD protein expression, 1061
Reduced folate carrier
Further studies on the interaction of nonpolyglutamatable aminopterin analogs with dihydrofolate reductase and the reduced folate carrier as determinants of *in vitro* antitumor activity, 1427
Reduction
Monoamine oxidase A inhibitory potency and flavin perturbation are influenced by different aspects of pirlindole inhibitor structure, 1867
Reperfusion
Calpain inhibitor (BSF 409425) diminishes ischemia/reperfusion-induced damage of rabbit heart mitochondria, 911
Resiniferatoxin
Pharmacology of vanilloids at recombinant and endogenous rat vanilloid receptors, 143
Resistance
Resistance to phorbol 12-myristate 13-acetate-induced cell growth arrest in an HL60 cell line chronically exposed to a glutathione *S*-transferase π inhibitor, 1611
Respiration
Calpain inhibitor (BSF 409425) diminishes ischemia/reperfusion-induced damage of rabbit heart mitochondria, 911
Respiration inhibitors
Trypanosoma cruzi: effect and mode of action of nitroimidazole and nitrofuran derivatives, 999
Respiratory chain
Sodium tanshinone IIA sulfonate mediates electron transfer reaction in rat heart mitochondria, 51
Large-conductance K^+ channel openers NS1619 and NS004 as inhibitors of mitochondrial function in glioma cells, 1827
Restenosis
Esculetin inhibits Ras-mediated cell proliferation and attenuates vascular restenosis following angioplasty in rats, 1897
Resveratrol
Resveratrol-induced G_2 arrest through the inhibition of CDK7 and $p34^{CDC2}$ kinases in colon carcinoma HT29 cells, 1053
Retinal
Enzymatic characterization of recombinant mouse retinal dehydrogenase type 1, 1685
Retinal dehydrogenase
Enzymatic characterization of recombinant mouse retinal dehydrogenase type 1, 1685

Retinoic acid
Enzymatic characterization of recombinant mouse retinal dehydrogenase type 1, 1685
Retinoic acid receptor-β
Effect of 20-*epi*-1α,25-dihydroxyvitamin D_3 on the proliferation of human neuroblastoma: role of cell cycle regulators and the Myc–Id2 pathway, 1943
Retinoid-related molecules
Reduced concentrations of serum enhance the antiproliferative activity of retinoid-related molecules and accelerate the onset of apoptosis, 2021
Retinoid-related orphan receptor
Inhibition of cytokine production by the herbicide atrazine. Search for nuclear receptor targets, 303
Rhein
Effects of rhein on human articular chondrocytes in alginate beads, 377
RhoA
Inhibition of pancreatic stellate cell activation by the hydroxymethylglutaryl coenzyme A reductase inhibitor lovastatin, 1295
Rhodamine 123
Multidrug resistance correlates with overexpression of Muc4 but inversely with P-glycoprotein and multidrug resistance related protein in transfected human melanoma cells, 1419
Rhodopsin-based model
Important amino acids for the function of the human MT1 melatonin receptor, 1463
Rho-kinase
Intracellular signal transduction modulating expression of plasminogen activator inhibitor-1 in adipocytes, 1907
Ribonucleotide reductase
Down-regulation of deoxycytidine kinase in human leukemic cell lines resistant to cladribine and clofarabine and increased ribonucleotide reductase activity contributes to fludarabine resistance, 237
Ribosome inactivation
High resolution X-ray structure of potent anti-HIV pokeweed antiviral protein-III, 1709
RNA–protein interaction
Interplay between transcriptional and post-transcriptional regulation of *Cyp2a5* expression, 1653
ROS
An oxidative mechanism of interferon induced priming of the Fas pathway in Fanconi anemia cells, 833
Rosiglitazone
Diminished production of nitric oxide synthase cofactor tetrahydrobiopterin by rosiglitazone in adipocytes, 593
RT–PCR
Effect of genotype on steady-state *CYP1A1* gene expression in human peripheral lymphocytes, 441
Ethanol consumption decreases the synthesis of the mannose 6-phosphate/insulin-like growth factor II receptor but does not decrease its messenger RNA, 637
RU486
Inhibition of cytokine production by the herbicide atrazine. Search for nuclear receptor targets, 303
Ryanodine receptors
ET_A receptor-mediated Ca^{2+} mobilisation in H9c2 cardiac cells, 783

Sarcoplasmic reticulum
Assessment of sarcoplasmic reticulum Ca^{2+}-uptake during the development of left ventricular hypertrophy, 933
Modification of intracellular free calcium in cultured A10 vascular smooth muscle cells by exogenous phosphatidic acid, 2091
Sarin
Sarin (nerve agent GB)-induced differential expression of mRNA coding for the acetylcholinesterase gene in the rat central nervous system, 2041
SB 225002
Characterization of the molecular interactions of interleukin-8 (CXCL8), growth related oncogen α (CXCL1) and a non-peptide antagonist (SB 225002) with the human CXCR2, 813
Scutigeral
Pharmacology of vanilloids at recombinant and endogenous rat vanilloid receptors, 143
Selection
Selection of insulin-producing rat insulinoma (RINm) cells with improved resistance to oxidative stress, 1797
Selectivity
Interaction of the D_{2short} dopamine receptor with G proteins: analysis of receptor/G protein selectivity, 1139
Semliki Forest virus CB_2 receptor construct
Expression of the murine CB_2 cannabinoid receptor using a recombinant Semliki Forest virus, 1931
Septic shock
Suppression of tumor necrosis factor-α and inducible nitric oxide synthase gene expression by THI 52, a new synthetic naphthyl-benzylisoquinoline alkaloid, 457
Decrease of the inflammatory response and induction of the Akt/protein kinase B pathway by poly-(ADP-ribose) polymerase 1 inhibitor in endotoxin-induced septic shock, 1373
Serum
Reduced concentrations of serum enhance the antiproliferative activity of retinoid-related molecules and accelerate the onset of apoptosis, 2021
Sesquiterpene lactones
The effect of sesquiterpene lactones on the release of human neutrophil elastase, 897
Effect of sesquiterpene lactones on the expression of the activation marker CD69 and of IL-2 in T-lymphocytes in whole blood, 1551
Short circuit current
Regulation of mastoparan-induced increase of paracellular permeability in T84 cells by RhoA and basolateral potassium channels, 1151
Siderophores
Cellular uptake of a catechol iron chelator and chloroquine into *Plasmodium falciparum* infected erythrocytes, 1351
Signal transduction
Modulation by caspases of tumor necrosis factor-stimulated c-Jun N-terminal kinase activation but not nuclear factor-κB signaling, 91
Peptide G protein agonists from a phage display library, 961
Effects of D3.49A, R3.50A, and A6.34E mutations on ligand binding and activation of the cannabinoid-2 (CB2) receptor, 1077
Site-directed mutagenesis
Effects of D3.49A, R3.50A, and A6.34E mutations on ligand binding and activation of the cannabinoid-2 (CB2) receptor, 1077
Important amino acids for the function of the human MT1 melatonin receptor, 1463
Skeletal muscle
Development of insulin resistance and reversal by thiazolidinediones in C2C12 skeletal muscle cells, 249
Beneficial effects of L-carnitine in myoblastic C2C12 cells. Interaction with zidovudine, 1483
Skinned fibers
Calpain inhibitor (BSF 409425) diminishes ischemia/reperfusion-induced damage of rabbit heart mitochondria, 911
Smooth muscle cells
Esculetin inhibits Ras-mediated cell proliferation and attenuates vascular restenosis following angioplasty in rats, 1897
SN26955
Improved potency of the hypoxic cytotoxin tirapazamine by DNA-targeting, 1807
SNP
Human MDR1 polymorphism: G2677T/A and C3435T have no effect on MDR1 transport activities, 1843
Sodium channel
Receptor-mediated adrenocorticoid hormone signaling in ocular tissues, 1207

Sodium ions
Differential allosteric modulation by amiloride analogues of agonist and antagonist binding at A_1 and A_3 adenosine receptors, 525
Sodium tanshinone IIA sulfonate (STS)
Sodium tanshinone IIA sulfonate mediates electron transfer reaction in rat heart mitochondria, 51
Sodium-dependent glucose transporter 1 (SGLT1)
Absorption of quercetin-3-glucoside and quercetin-4′-glucoside in the rat small intestine: the role of lactase phlorizin hydrolase and the sodium-dependent glucose transporter, 1199
Spasmolytic drug
The antioxidant activity of caroverine, 59
Species-based difference
Metabolism of 26,26,26,27,27,27-F_6-1α,25-dihydroxyvitamin D_3 by CYP24: species-based difference between humans and rats, 1957
Spinach
Effects of glycolipids from spinach on mammalian DNA polymerases, 259
Spontaneously hypertensive rat
Endogenous nitric oxide does not modulate mesenteric mast cell degranulation in rats, 2073
SR Ca^{2+}-ATPase
Modification of intracellular free calcium in cultured A10 vascular smooth muscle cells by exogenous phosphatidic acid, 2091
Statins
Statin effects on cholesterol micro-domains in brain plasma membranes, 843
Steroid biosynthesis
Transcriptional suppression of the adrenal cortical peripheral-type benzodiazepine receptor gene and inhibition of steroid synthesis by ginkgolide B, 717
Store-operated calcium channels
Dihydropyridines as inhibitors of capacitative calcium entry in leukemic HL-60 cells, 329
Stress kinases
Reduced concentrations of serum enhance the antiproliferative activity of retinoid-related molecules and accelerate the onset of apoptosis, 2021
Structure–activity relationship
Inhibition of ATP-sensitive K^+-channels by a sulfonylurea analogue with a phosphate group, 599
N^6-Substituted adenosine derivatives: selectivity, efficacy, and species differences at A_3 adenosine receptors, 1675
Monoamine oxidase A inhibitory potency and flavin perturbation are influenced by different aspects of pirlindole inhibitor structure, 1867
Sulfate conjugation
Pharmacogenetics of human 3′-phosphoadenosine 5′-phosphosulfate synthetase 1 (PAPSS1): gene resequencing, sequence variation, and functional genomics, 1787
Sulfation
Pharmacogenetics of human 3′-phosphoadenosine 5′-phosphosulfate synthetase 1 (PAPSS1): gene resequencing, sequence variation, and functional genomics, 1787
Sulfonylurea analogue with a phosphate group
Inhibition of ATP-sensitive K^+-channels by a sulfonylurea analogue with a phosphate group, 599
Sulfonylurea receptor subtypes
Inhibition of ATP-sensitive K^+-channels by a sulfonylurea analogue with a phosphate group, 599
Sulfonylureas
Inhibition of ATP-sensitive K^+-channels by a sulfonylurea analogue with a phosphate group, 599
Superoxide anion
Reactive oxygen species are involved in the stimulation of the mitochondrial permeability transition by dihydrolipoate, 43
Investigation of the cellular mechanism of inhibition of formyl-methionyl-leucyl-phenylalanine-induced superoxide anion generation in rat neutrophils by 2-benzyloxybenzaldehyde, 1043
In vitro effects of mangiferin on superoxide concentrations and expression of the inducible nitric oxide synthase, tumour necrosis factor-α and transforming growth factor-β genes, 1361
Suramin
Activation of deoxycytidine kinase by UV-C-irradiation in chronic lymphocytic leukemia B-lymphocytes, 573
Surmountable
Peptide and nonpeptide antagonist interaction with constitutively active human AT_1 receptors, 1329
SV40 small t-antigen
Activation of the coactivator four-and-a-half-LIM-only protein FHL2 and the c-*fos* promoter through inhibition of protein phosphatase 2A, 1317
Swelling
Toxic effects of copper-based antineoplastic drugs (Casiopeinas®) on mitochondrial functions, 1979
[^{35}S]GTPγS binding
Pharmacological characterisation of a cell line expressing $GABA_{B1b}$ and $GABA_{B2}$ receptor subunits, 1103
Interaction of the D_{2short} dopamine receptor with G proteins: analysis of receptor/G protein selectivity, 1139

T lymphocyte
Dimethylsphingosine increases cytosolic calcium and intracellular pH in human T lymphocytes, 465
The voltage- and time-dependent blocking effect of trifluoperazine on T lymphocyte Kv1.3 channels, 551
Tat
U50,488 inhibits HIV-1 Tat-induced monocyte chemoattractant protein-1 (CCL2) production by human astrocytes, 9
Taurine transporter
Taurine transporter in primary cultured neonatal rat heart cells: a comparison between cardiac myocytes and nonmyocytes, 1181
TEM8
Anthrax toxin receptor proteins, 309
Tetrahedral mimic
Potent inhibition of human folylpolyglutamate synthetase by a phosphinic acid mimic of the tetrahedral reaction intermediate, 315
Tetrahydrobiopterin
Diminished production of nitric oxide synthase cofactor tetrahydrobiopterin by rosiglitazone in adipocytes, 593
Therapy
Broad-spectrum chemokine inhibitors (BSCIs) and their anti-inflammatory effects *in vivo*, 1027
Thiazolidinedione
Differential effects of YM440 a hypoglycemic agent on binding to a peroxisome proliferator-activated receptor γ and its transactivation, 795
Thiazolidinediones
Development of insulin resistance and reversal by thiazolidinediones in C2C12 skeletal muscle cells, 249
Diminished production of nitric oxide synthase cofactor tetrahydrobiopterin by rosiglitazone in adipocytes, 593
Thiol groups
Dual effect of ebselen on mitochondrial permeability transition, 1643
Thiols depletion
Trypanosoma cruzi: effect and mode of action of nitroimidazole and nitrofuran derivatives, 999
Thrombosis
Intracellular signal transduction modulating expression of plasminogen activator inhibitor-1 in adipocytes, 1907
Thymidine kinase
Selective activation of deoxycytidine kinase by thymidine-5′-thiosulphate and release by deoxycytidine in human lymphocytes, 563
Activation of deoxycytidine kinase by UV-C-irradiation in chronic lymphocytic leukemia B-lymphocytes, 573
Thymidylate synthase
Cellular transformation of the investigational new anticancer drug NB1011, a phosphoramidate of 5-(2-bromovinyl)-2′-deoxyuridine, results in modification of cellular proteins not DNA, 823

Thyroxine
Thyroxine-derivatives of lipopeptides: bifunctional dimerization inhibitors of human immunodeficiency virus-1 protease, 1097
Tirapazamine
Improved potency of the hypoxic cytotoxin tirapazamine by DNA-targeting, 1807
Tissue damage
Use of the A_{2A} adenosine receptor as a physiological immunosuppressor and to engineer inflammation *in vivo*, 493
Tissue distribution
Expression of acetoacetyl-CoA synthetase, a novel cytosolic ketone body-utilizing enzyme, in human brain, 989
TNF-α
Effects of high glucose on cytokine-induced nerve growth factor (NGF) expression in rat renal mesangial cells, 293
Suppression of tumor necrosis factor-α and inducible nitric oxide synthase gene expression by THI 52, a new synthetic naphthyl-benzylisoquinoline alkaloid, 457
Inhibition of the NF-κB signaling pathway mediates the anti-inflammatory effects of petrosaspongiolide M, 887
Tumor necrosis factor α-induced apoptosis in astrocytes is prevented by the activation of $P2Y_6$, but not $P2Y_4$ nucleotide receptors, 923
LAAE-14, a new *in vitro* inhibitor of intracellular calcium mobilization, modulates acute and chronic inflammation, 1539
TNF
Decoy receptor 3 (DcR3) is proteolytically processed to a metabolic fragment having differential activities against Fas ligand and LIGHT, 657
TNFR
TNF-α induces apoptosis of parietal cells, 1755
Topoisomerase I
Dual inhibition of topoisomerase I and tubulin polymerization by BPR0Y007, a novel cytotoxic agent, 2009
Topoisomerases
Apoptotic cell death induction by F 11782 a novel dual catalytic inhibitor of topoisomerases I and II, 755
Toxicity of iron chelators
Lipophilicity of analogs of pyridoxal isonicotinoyl hydrazone (PIH) determines the efflux of iron complexes and toxicity in K562 cells, 349
Toxicogenomics
Toxicogenomics of bromobenzene hepatotoxicity: a combined transcriptomics and proteomics approach, 857
TRAF-1
Apoptosis and TRAF-1 cleavage in Epstein-Barr virus-positive nasopharyngeal carcinoma cells treated with doxorubicin combined with a farnesyl-transferase inhibitor, 423
Transactivation
Differential effects of YM440 a hypoglycemic agent on binding to a peroxisome proliferator-activated receptor γ and its transactivation, 795
Transcription
Interplay between transcriptional and post-transcriptional regulation of *Cyp2a5* expression, 1653
Transcription factor
Modulation by caspases of tumor necrosis factor-stimulated c-Jun N-terminal kinase activation but not nuclear factor-κB signaling, 91
Transcriptional regulation
Opposing mechanisms of NADPH-cytochrome P450 oxidoreductase regulation by peroxisome proliferators, 949
Transcriptomics
Toxicogenomics of bromobenzene hepatotoxicity: a combined transcriptomics and proteomics approach, 857
Transepithelial resistance
Regulation of mastoparan-induced increase of paracellular permeability in T84 cells by RhoA and basolateral potassium channels, 1151
Transition metals
Iron and transition metal transport into erythrocytes mediated by nifedipine degradation products and related compounds, 1215
Transport
Novel selective and metabolically stable inhibitors of anandamide cellular uptake, 1473
Transport regulation
Modulatory effects of hormones, drugs, and toxic events on renal organic anion transport, 1393
Transporter
Beneficial effects of L-carnitine in myoblastic C2C12 cells. Interaction with zidovudine, 1483
Human MDR1 polymorphism: G2677T/A and C3435T have no effect on MDR1 transport activities, 1843
Transsulfuration pathway
Effect of acute betaine administration on hepatic metabolism of *S*-amino acids in rats and mice, 1565
Trifluoperazine
The voltage- and time-dependent blocking effect of trifluoperazine on T lymphocyte Kv1.3 channels, 551
Trk receptors
Role of nerve growth factor in the regulation of parotid cell differentiation induced by rat serum, 1507
Trypanosoma cruzi
Trypanosoma cruzi: effect and mode of action of nitroimidazole and nitrofuran derivatives, 999
Tryptase
The inhibition of mast cell activation by neutrophil lactoferrin: uptake by mast cells and interaction with tryptase, chymase and cathepsin G, 1007
Polycationic peptides as inhibitors of mast cell serine proteases, 1171
Tubulin
Dual inhibition of topoisomerase I and tubulin polymerization by BPR0Y007, a novel cytotoxic agent, 2009
Tumor
Improved potency of the hypoxic cytotoxin tirapazamine by DNA-targeting, 1807
Tumor suppressor protein p53
Recognition of DNA modified by antitumor cisplatin by "latent" and "active" protein p53, 1305
TUNEL
Impaired receptor-mediated endocytosis by the asialoglycoprotein receptor in ethanol-fed mice: implications for studying the role of this receptor in alcoholic apoptosis, 535
Two-state model
A two-state model of antagonist-AT_1 receptor interaction: further support by binding studies at low temperature, 1339
Type A MAO
Effects of zinc ion on type A monoamine oxidase in monkey brain mitochondria, 625
Type A MAO inhibitor
Effects of zinc ion on type A monoamine oxidase in monkey brain mitochondria, 625
Type B MAO
Effects of zinc ion on type A monoamine oxidase in monkey brain mitochondria, 625
Tyrphostin
Two-step formation of ^1H NMR visible mobile lipids during apoptosis of paclitaxel-treated K562 cells, 1271

U0126
Inhibition of the MEK/ERK pathway has no effect on agonist-induced aggregation of human platelets, 1243
U50,488
U50,488 inhibits HIV-1 Tat-induced monocyte chemoattractant protein-1 (CCL2) production by human astrocytes, 9
Ubisemiquinone
Reactive oxygen species are involved in the stimulation of the mitochondrial permeability transition by dihydrolipoate, 43

UDP-glucuronosyltransferase
Cloning and characterisation of the first drug-metabolising canine UDP-glucuronosyltransferase of the 2B subfamily, 1251
UDP-glucuronosyltransferase 2B7
Glucosidation of hyodeoxycholic acid by UDP-glucuronosyltransferase 2B7, 417
UGT
Preclinical factors affecting the interindividual variability in the clearance of the investigational anti-cancer drug 5,6-dimethylxanthenone-4-acetic acid, 1853
UGT activity
Cloning and characterisation of the first drug-metabolising canine UDP-glucuronosyltransferase of the 2B subfamily, 1251
UGT1 polymorphisms
Frequent co-occurrence of the TATA box mutation associated with Gilbert's syndrome (*UGT*1A1*28) with other polymorphisms of the UDP-glucuronosyltransferase-1 locus (*UGT*1A6*2 and *UGT*1A7*3) in Caucasians and Egyptians, 1521
UGT2B7
Cloning and characterisation of the first drug-metabolising canine UDP-glucuronosyltransferase of the 2B subfamily, 1251
Uncoupling proteins
Mitochondrial uncoupling protein 2 in the central nervous system: neuromodulator and neuroprotector, 1917
Uroporphyrin
Uroporphyrin accumulation in hepatoma cells expressing human or mouse CYP1A2: relation to the role of CYP1A2 in human porphyria cutanea tarda, 545
Uroporphyrinogen oxidation
Uroporphyrin accumulation in hepatoma cells expressing human or mouse CYP1A2: relation to the role of CYP1A2 in human porphyria cutanea tarda, 545
USF
Interaction of upstream stimulatory factor proteins with an E-box located within the human *CYP1A2* 5′-flanking gene contributes to basal transcriptional gene activation, 1087

Valproic acid
The effect of valproic acid on drug and steroid glucuronidation by expressed human UDP-glucuronosyltransferases, 1441
Vanilloid VR1 receptor
Pharmacology of vanilloids at recombinant and endogenous rat vanilloid receptors, 143
Vascular endothelial growth factor
Oversulfation of fucoidan enhances its anti-angiogenic and antitumor activities, 173
Vascular permeability
Endogenous nitric oxide does not modulate mesenteric mast cell degranulation in rats, 2073
Vascular smooth muscle cell
Regulation of cyclooxygenase-2 expression by iloprost in human vascular smooth muscle cells. Role of transcription factors CREB and ICER, 979
Modification of intracellular free calcium in cultured A10 vascular smooth muscle cells by exogenous phosphatidic acid, 2091
Vasoactive intestinal peptide
Role of nerve growth factor in the regulation of parotid cell differentiation induced by rat serum, 1507
VASP
Endothelium-dependent and -independent relaxation and VASP serines 157/239 phosphorylation by cyclic nucleotide-elevating vasodilators in rat aorta, 397
Verapamil
An amperometric biosensor with human CYP3A4 as a novel drug screening tool, 1817
Vitamin C
Evaluation of oxidative stress during apoptosis and necrosis caused by D-galactosamine in rat liver, 101
Vitamin D analog
Effect of 20-*epi*-1α,25-dihydroxyvitamin D_3 on the proliferation of human neuroblastoma: role of cell cycle regulators and the Myc–Id2 pathway, 1943
Metabolism of 26,26,26,27,27,27-F_6-1α,25-dihydroxyvitamin D_3 by CYP24: species-based difference between humans and rats, 1957
Vitamin E
Evaluation of oxidative stress during apoptosis and necrosis caused by D-galactosamine in rat liver, 101
Vitamin E activates gene expression via the pregnane X receptor, 269
VLDL secretion
Effects of dehydroepiandrosterone on oleic acid accumulation in rat liver, 1583
VR1
Novel selective and metabolically stable inhibitors of anandamide cellular uptake, 1473

Western analysis
Expression profiles of three isoforms of inositol 1,4,5-trisphosphate receptor in brown adipose tissue of the rat, 995
Western blot
Minimally modified phosphodiester antisense oligodeoxyribonucleotide directed against the multidrug resistance gene *mdr1*, 747
WR1065
Activation of p53 by the cytoprotective aminothiol WR1065: DNA-damage-independent pathway and redox-dependent modulation of p53 DNA-binding activity, 1129

Xenobiotic responsive element
Oxathiolene oxides: a novel family of compounds that induce ferritin, glutathione *S*-transferase, and other proteins of the phase II response, 1261
Xenobiotic transport
Modulatory effects of hormones, drugs, and toxic events on renal organic anion transport, 1393
Xenografts
Cellular bases of the antitumor activity of a 7-substituted camptothecin in hormone-refractory human prostate carcinoma models, 1281
X-ray structure
High resolution X-ray structure of potent anti-HIV pokeweed antiviral protein-III, 1709

Yessotoxin
Yessotoxin, a novel phycotoxin, activates phosphodiesterase activity. Effect of yessotoxin on cAMP levels in human lymphocytes, 193

Zidovudine
Beneficial effects of L-carnitine in myoblastic C2C12 cells. Interaction with zidovudine, 1483
Zinc
Indomethacin-induced free radical-mediated changes in the intestinal brush border membranes, 683
Zinc ion
Effects of zinc ion on type A monoamine oxidase in monkey brain mitochondria, 625
ZK 91587
Receptor-mediated adrenocorticoid hormone signaling in ocular tissues, 1207
Zymosan
Inhibition of the NF-κB signaling pathway mediates the anti-inflammatory effects of petrosaspongiolide M, 887